

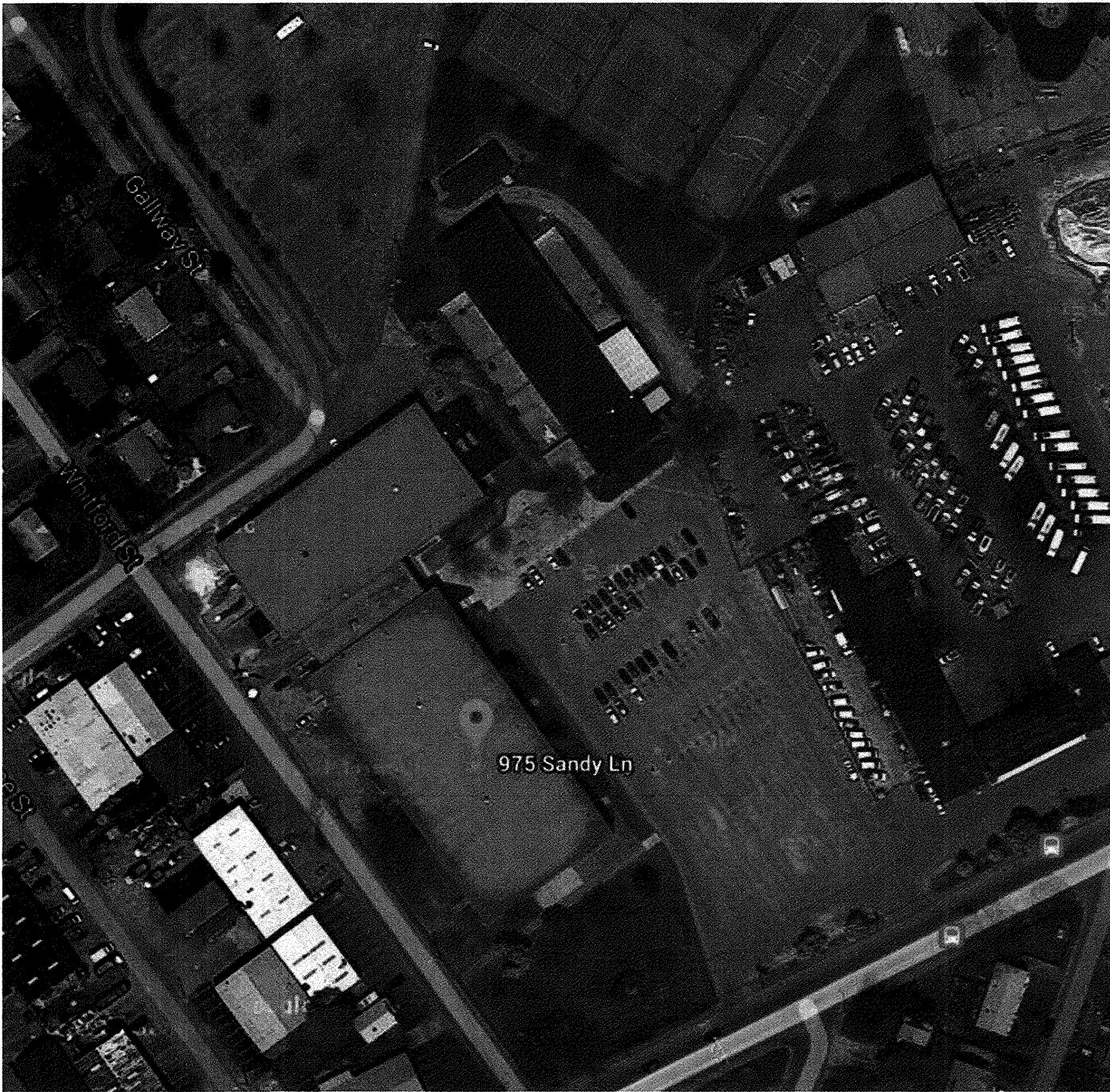
CITY OF WARWICK FIRE ALARM AND SPRINKLER UPGRADES

LIST OF DRAWINGS:

FP-1.0	975 SANDY LANE FIRE PROTECTION - NOTES, DETAILS AND SITE PLAN
FP-1.1	975 SANDY LANE FIRE PROTECTION - PARTIAL FIRST FLOOR PLAN
FP-1.2	975 SANDY LANE FIRE PROTECTION - PARTIAL FIRST FLOOR PLAN
FP-1.3	975 SANDY LANE FIRE PROTECTION - PARTIAL FIRST FLOOR PLAN
FP-1.4	975 SANDY LANE FIRE PROTECTION - SECOND FLOOR PLAN
FP-A1.1	975 SANDY LANE FIRE PROTECTION - PARTIAL FIRST FLOOR ALTERNATE PLAN
FP-A1.2	975 SANDY LANE FIRE PROTECTION - PARTIAL FIRST FLOOR ALTERNATE PLAN
FP-A1.3	975 SANDY LANE FIRE PROTECTION - PARTIAL FIRST FLOOR ALTERNATE PLAN
FA-1.0	975 SANDY LANE FIRE ALARM - NOTES, LEGEND, DETAILS, AND SECOND FLOOR PLAN
FA-1.1	975 SANDY LANE FIRE ALARM - PARTIAL FIRST FLOOR PLAN
FA-1.2	975 SANDY LANE FIRE ALARM - PARTIAL FIRST FLOOR PLAN
FA-1.3	975 SANDY LANE FIRE ALARM - PARTIAL FIRST FLOOR PLAN
FA-2.0	955 SANDY LANE FIRE ALARM - NOTES, LEGEND, AND DETAILS
FA-2.1	955 SANDY LANE FIRE ALARM - FIRST FLOOR AND MEZZANINE PLAN



MCDERMOTT POOL
955 SANDY LANE
WARWICK, RI 02889



THAYER-WARBURTON ARENA
975 SANDY LANE
WARWICK, RI 02889

NO.	REVISION	DATE

PROJECT
FIRE ALARM AND
SPRINKLER UPGRADE

ADDRESS

PROJECT NO
1JW00218.001

DATE
SEPTEMBER 04, 2014

DESIGN
CSB

DRAWN BY
CSB

CHECKED BY
JJW

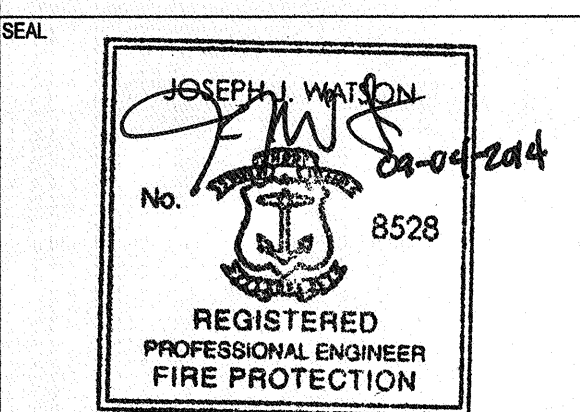
SCALE

NOTE: IF DRAWING IS LESS THAN 24" X 36"
REDUCE GRAPHIC SCALE ACCORDINGLY.

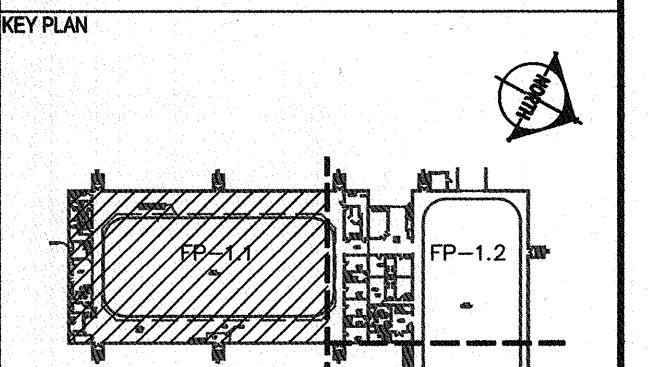
TITLE

NUMBER
COVER

SHEET
0 of 14



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NO.	REVISION	DATE

PROJECT
**FIRE ALARM AND
SPRINKLER UPGRADE**

ADDRESS
975 SANDY LANE
WARWICK, RI
PROJECT NO
1JJW00218.001

DATE
SEPTEMBER 04, 2014

DESIGN
CSB

DRAWN BY
CSB

CHECKED BY
JJW

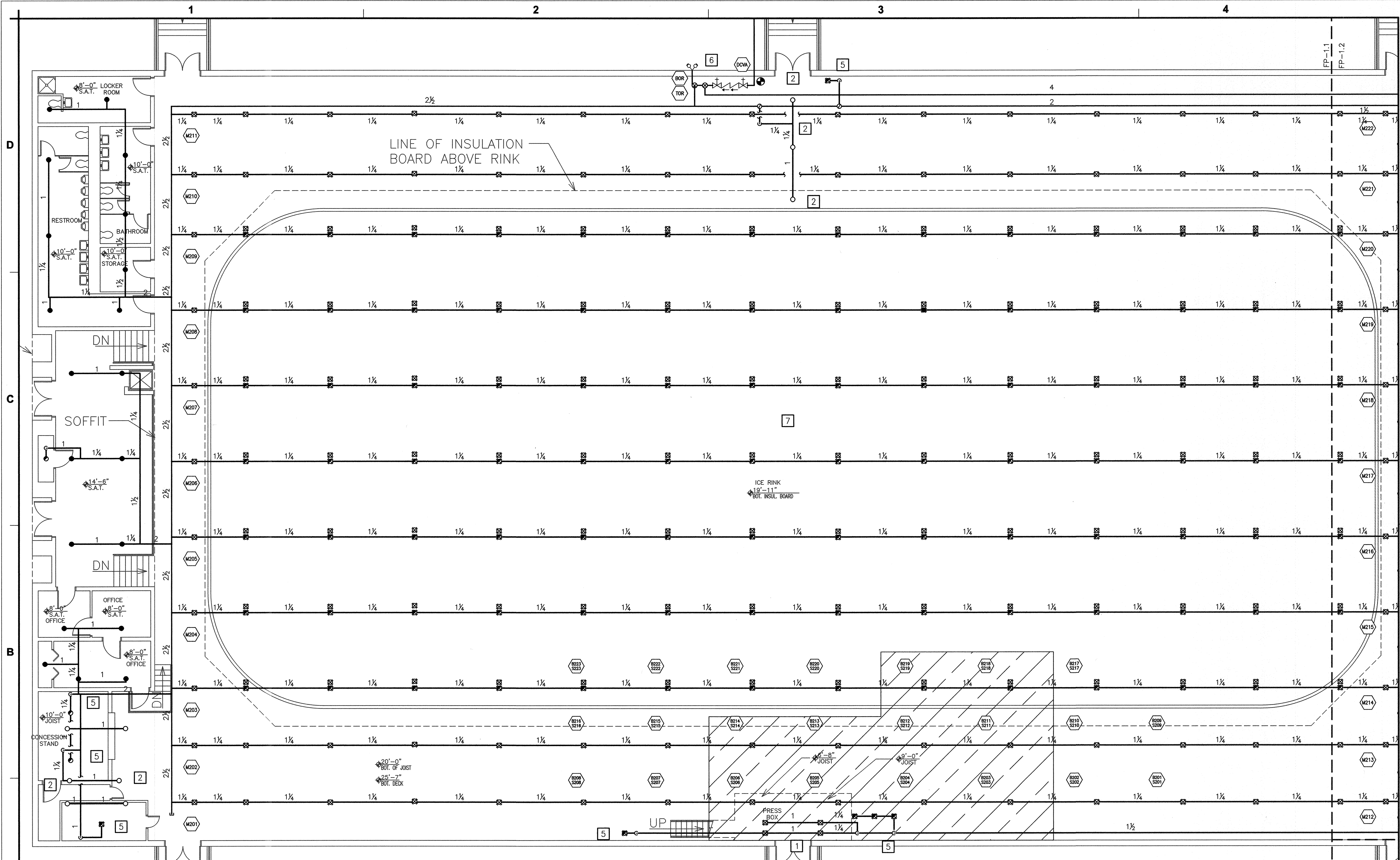
SCALE 1/8" = 1'-0"

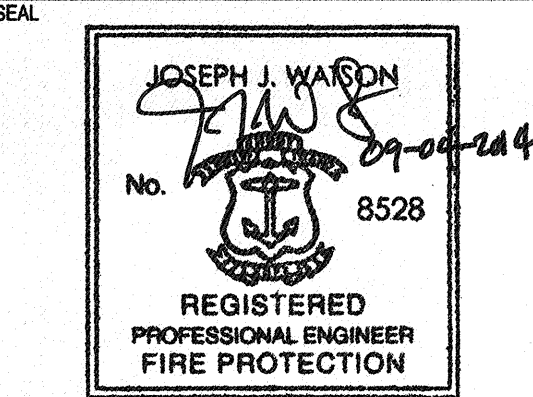
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TITLE
**975 SANDY LANE FIRE
PROTECTION- PARTIAL FIRST
FLOOR PLAN**

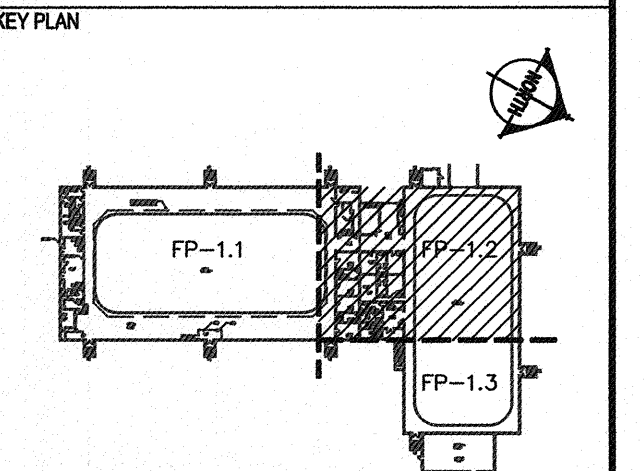
NUMBER
FP-1.1

SHEET 2 of 14





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NO.	REVISION	DATE

PROJECT
FIRE ALARM AND SPRINKLER UPGRADE

ADDRESS
975 SANDY LANE
WARWICK, RI
PROJECT NO
1JJW00218.001
DATE
SEPTEMBER 04, 2014
DESIGN
CSB
DRAWN BY
CSB
CHECKED BY
JJW
SCALE 1/8" = 1'-0"
4' 2' 0' 8' 16'

NOTE: IF DRAWING IS LESS THAN 24" X 36"
REDUCE GRAPHIC SCALE ACCORDINGLY.

TITLE
975 SANDY LANE FIRE PROTECTION- PARTIAL FIRST FLOOR PLAN

NUMBER
FP-1.2

SHEET
3 of 14

KEY NOTE

1. INSTALL TWO (2) UPRIGHT SPRINKLERS WITH LISTED GUARDS AT CEILING LEVEL OF THE PRESS BOX, AS SHOWN, AND TWO (2) UPRIGHT SPRINKLERS WITH GUARDS UNDER THE PRESS BOX, AS SHOWN.
2. INSTALL UPRIGHT SPRINKLER UNDER DUCT GREATER THAN 48 INCHES IN WIDTH, AS SHOWN.
3. INSTALL UPRIGHT SPRINKLER BELOW OVERHEAD GARAGE DOOR.
4. UPRIGHT SPRINKLERS SHALL BE INSTALLED WITHIN ONE (1) TO SIX (6) INCHES BELOW THE STRUCTURAL MEMBERS.
5. PENDENT SPRINKLER(S) WITH LISTED GUARD TO BE INSTALLED IN ENCLOSURE.
6. REPLACE EXISTING FIRE DEPARTMENT CONNECTION WITH NEW FIRE DEPARTMENT CONNECTION AND REPLACE EXISTING CHECK VALVE WITH NEW 4" CHECK VALVE WITH 1/2" BALL DRIP. REMOVE EXISTING DETECTOR CHECK VALVE IN EXTERIOR PIT AND REPLACE WITH NEW 4" SPOOL PIECE. REUSE EXISTING 4" FIRE SERVICE MAIN. INSTALL NEW 4" BACKFLOW PREVENTER AND RISER; CONNECT TO EXISTING FIRE SERVICE, AS SHOWN. INSTALL NEW 8'-0" HIGH CHAIN LINK FENCE AROUND NEW FIRE PROTECTION VALVES AND PIPING. PROVIDE SWINGING GATE TO PROVIDE ACCESS TO FIRE PROTECTION VALVES FOR INSPECTION, TESTING AND MAINTENANCE.
7. WORK ABOVE ASTRO-RINK LAYER TO BE COMPLETED WITHOUT REMOVAL OF ASTRO-RINK LAYER. CONTRACTOR SHALL PROVIDE ALL STAGING, HOISTING, SCAFFOLDING NECESSARY TO COMPLETE THE SCOPE OF WORK, AS SHOWN. ALL DAMAGED SECTIONS OF THE ASTRO-RINK LAYER SHALL BE RETURNED TO ORIGINAL CONDITION AT NO COST TO THE OWNER.
8. WORK ABOVE ASTRO-RINK LAYER TO BE COMPLETED WITHOUT THE COMPLETE REMOVAL OF THE ASTRO-RINK LAYER. CONTRACTOR SHALL PROVIDE ALL STAGING, HOISTING, AND SCAFFOLDING NECESSARY TO COMPLETE THE SCOPE, AS SHOWN. CONTRACTOR TO REMOVE SECTIONS NECESSARY TO PROVIDE ACCESS ABOVE ASTRO-RINK LAYER. ASTRO-RINK LAYER TO BE RETURNED TO ORIGINAL CONDITION AT NO COST TO THE OWNER. ANY ADDITIONAL DAMAGED SECTIONS OF THE ASTRO-RINK LAYER SHALL BE RETURNED TO ORIGINAL CONDITION AT NO COST TO THE OWNER.
9. CONTRACTOR SHALL CUT CEILING TO PROVIDE ACCESS ABOVE FOR CONCEALED SPRINKLER PIPING. PATCH ALL CEILINGS TO ORIGINAL CONDITION TO THE SATISFACTION OF THE OWNER.
10. SPRINKLER PIPING TO BE RUN EXPOSED WITH HANGERS IN CONCRETE SLAB ABOVE.
11. INSTALL PROTECTIVE GUARD ON SPRINKLER TO PROTECT FROM MECHANICAL DAMAGE.
12. ROUTE DRAIN TO EXTERIOR OF BUILDING.

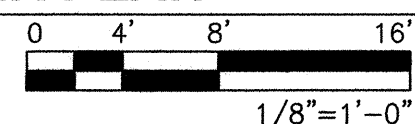
SHEET NOTE

1. INSTALL PROTECTIVE SPRINKLER GUARDS ON ALL SPRINKLERS OPEN TO THE ICE RINKS. SPRINKLER GUARDS ARE NOT REQUIRED ON SPRINKLERS AT CEILING LEVEL LOCATED ABOVE THE ASTRO-RINK LAYER.

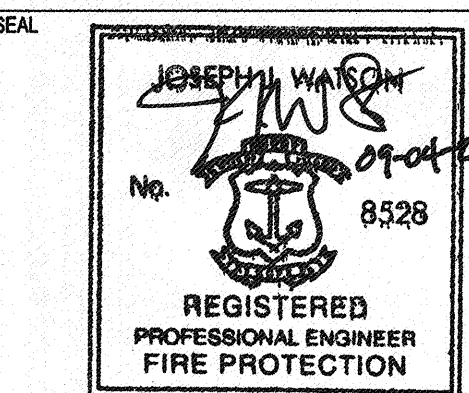
SPRINKLER LEGEND							
SYMBOL	MANUFACTURER	MODEL	TYPE	RESPONSE	NPT	K-FACTOR	FINISH
●	TYCO	TY3531	CONCEALED PENDENT	QUICK	1/2"	5.6	BRASS
○	TYCO	TY3131	UPRIGHT	QUICK	1/2"	5.6	BRASS
●	TYCO	TY3231	PENDENT	QUICK	1/2"	5.6	BRASS
▲	TYCO	TY5339	EXTENDED COVERAGE HORIZ. SIDEWALL	QUICK	3/4"	11.2	CHROME
△	TYCO	TY3321	HORIZ. SIDEWALL	QUICK	1/2"	5.6	BRASS
×	TYCO	G1 or G4	SPRINKLER GUARD	-	-	-	-

PARTIAL FIRST FLOOR FIRE SPRINKLER PLAN

SCALE: 1/8" = 1'-0"

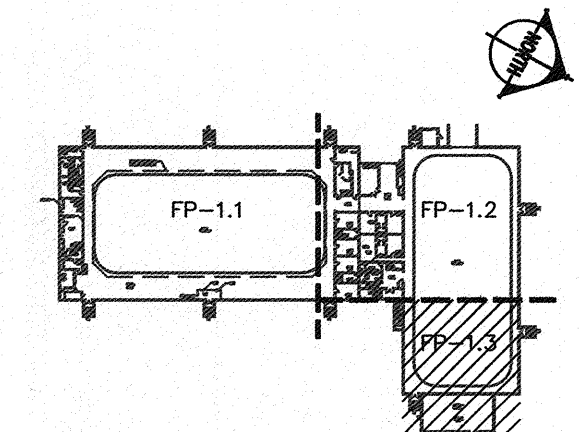


HYDRAULIC CALCULATION # 2	
OCCUPANCY:	LIGHT HAZARD
DENSITY:	0.10 gpm/sq. ft.
AREA OF OPERATION:	~1530 SQ. FT.
SPRINKLER DEMAND:	165.7 gpm
AVAIL. PRESSURE (P SOURCE):	82.5 psi
TOTAL DEMAND (P SOURCE):	265.7 gpm @ 52.2 psi



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KEY PLAN



NO.	REVISION	DATE

PROJECT
**FIRE ALARM AND
SPRINKLER UPGRADE**

ADDRESS
**975 SANDY LANE
WARWICK, RI**

PROJECT NO
1JJW00218.001

DATE
SEPTEMBER 04, 2014

DESIGN
CSB

DRAWN BY
CSB

CHECKED BY
JJW

SCALE 1/8" = 1'-0"
4' 2' 0' 4' 8' 16'

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REDUCE GRAPHIC SCALE ACCORDINGLY.

TITLE
**975 SANDY LANE FIRE
PROTECTION- PARTIAL FIRST
FLOOR PLAN**

NUMBER
FP-1.3

SHEET
4 of 14

KEY NOTE

- INSTALL TWO (2) UPRIGHT SPRINKLERS WITH LISTED GUARDS AT CEILING LEVEL OF THE PRESS BOX, AS SHOWN, AND TWO (2) UPRIGHT SPRINKLERS WITH GUARDS UNDER THE PRESS BOX, AS SHOWN.
- INSTALL UPRIGHT SPRINKLER UNDER DUCT GREATER THAN 48 INCHES IN WIDTH, AS SHOWN.
- INSTALL UPRIGHT SPRINKLER BELOW OVERHEAD GARAGE DOOR
- UPRIGHT SPRINKLERS SHALL BE INSTALLED WITHIN ONE (1) TO SIX (6) INCHES BELOW THE STRUCTURAL MEMBERS.
- PENDENT SPRINKLER(S) WITH LISTED GUARD TO BE INSTALLED IN ENCLOSURE.
- REPLACE EXISTING FIRE DEPARTMENT CONNECTION WITH NEW FIRE DEPARTMENT CONNECTION AND REPLACE EXISTING CHECK VALVE WITH NEW 4" CHECK VALVE WITH 1/2" BALL DRIP. REMOVE EXISTING DETECTOR CHECK VALVE IN EXTERIOR PIT AND REPLACE WITH NEW 4" SPOOL PIECE. REUSE EXISTING 4" FIRE SERVICE MAIN. INSTALL NEW 4" BACKFLOW PREVENTER AND RISER, CONNECT TO EXISTING FIRE SERVICE, AS SHOWN. INSTALL NEW 8'-0" HIGH CHAIN LINK FENCE AROUND NEW FIRE PROTECTION VALVES AND PIPING. PROVIDE SWINGING GATE TO PROVIDE ACCESS TO FIRE PROTECTION VALVES FOR INSPECTION, TESTING AND MAINTENANCE.
- WORK ABOVE ASTRO-RINK LAYER TO BE COMPLETED WITHOUT REMOVAL OF ASTRO-RINK LAYER. CONTRACTOR SHALL PROVIDE ALL STAGING, HOISTING, SCAFFOLDING NECESSARY TO COMPLETE THE SCOPE OF WORK, AS SHOWN. ALL DAMAGED SECTIONS OF THE ASTRO-RINK LAYER SHALL BE RETURNED TO ORIGINAL CONDITION AT NO COST TO THE OWNER.
- WORK ABOVE ASTRO-RINK LAYER TO BE COMPLETED WITHOUT THE COMPLETE REMOVAL OF THE ASTRO-RINK LAYER. CONTRACTOR SHALL PROVIDE ALL STAGING, HOISTING, AND SCAFFOLDING NECESSARY TO COMPLETE THE SCOPE, AS SHOWN. CONTRACTOR TO REMOVE SECTIONS NECESSARY TO PROVIDE ACCESS ABOVE ASTRO-RINK LAYER. ASTRO-RINK LAYER TO BE RETURNED TO ORIGINAL CONDITION AT NO COST TO THE OWNER. ANY ADDITIONAL DAMAGED SECTIONS OF THE ASTRO-RINK LAYER SHALL BE RETURNED TO ORIGINAL CONDITION AT NO COST TO THE OWNER.
- CONTRACTOR SHALL CUT CEILING TO PROVIDE ACCESS ABOVE FOR CONCEALED SPRINKLER PIPING. PATCH ALL CEILINGS TO ORIGINAL CONDITION TO THE SATISFACTION OF THE OWNER.
- SPRINKLER PIPING TO BE RUN EXPOSED WITH HANGERS IN CONCRETE SLAB ABOVE.
- INSTALL PROTECTIVE GUARD ON SPRINKLER TO PROTECT FROM MECHANICAL DAMAGE.
- ROUTE DRAIN TO EXTERIOR OF BUILDING.

SHEET NOTE

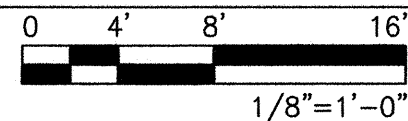
- INSTALL PROTECTIVE SPRINKLER GUARDS ON ALL SPRINKLERS OPEN TO THE ICE RINKS. SPRINKLER GUARDS ARE NOT REQUIRED ON SPRINKLERS AT CEILING LEVEL LOCATED ABOVE THE ASTRO-RINK LAYER.

SPRINKLER LEGEND

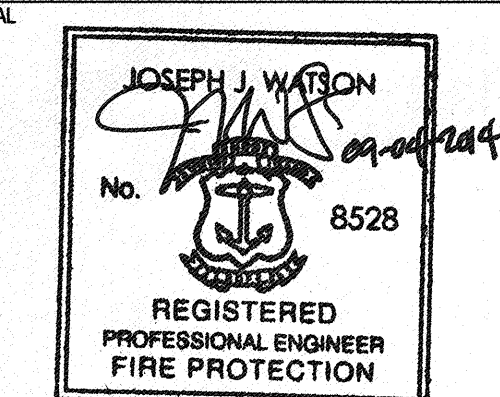
SYMBOL	MANUFACTURER	MODEL	TYPE	RESPONSE	NPT	K-FACTOR	FINISH	ESCUTCHEON
●	TYCO	TY3531	CONCEALED PENDENT	QUICK	1/2"	5.6	BRASS	WHITE
○	TYCO	TY3131	UPRIGHT	QUICK	1/2"	5.6	BRASS	NONE
●	TYCO	TY3231	PENDENT	QUICK	1/2"	5.6	BRASS	NONE
▲	TYCO	TY5339	EXTENDED COVERAGE HORIZ. SIDEWALL	QUICK	3/4"	11.2	CHROME	CHROME
△	TYCO	TY3321	HORIZ. SIDEWALL	QUICK	1/2"	5.6	BRASS	CHROME
⊗	TYCO	G1 or G4	SPRINKLER GUARD	-	-	-	-	-

PARTIAL FIRST FLOOR FIRE SPRINKLER PLAN

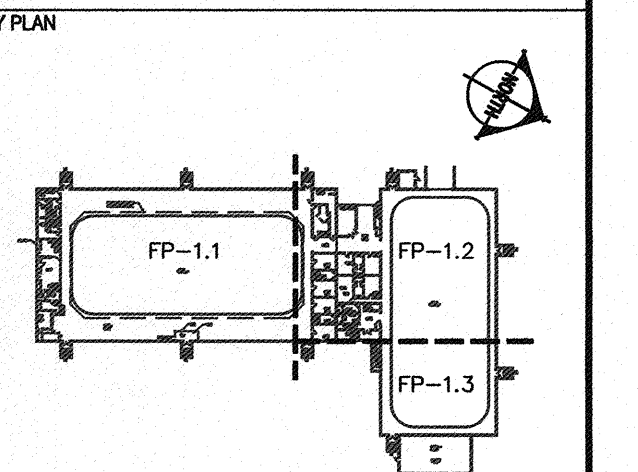
SCALE: 1/8" = 1'-0"



HYDRAULIC CALCULATION # 3	
OCCUPANCY:	ORDINARY HAZARD 1 (OH-1)
DENSITY:	0.15 gpm/sq. ft.
AREA OF OPERATION:	~1555 SQ. FT.
SPRINKLER DEMAND:	290.8 gpm
AVAIL. PRESSURE (@ SOURCE):	75.8 psi
TOTAL DEMAND (@ SOURCE):	540.8 gpm @ 58.5 psi



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NO.	REVISION	DATE

PROJECT
**FIRE ALARM AND
SPRINKLER UPGRADE**

ADDRESS
975 SANDY LANE
WARWICK, RI

PROJECT NO
1JJW00218.001

DATE
SEPTEMBER 04, 2014

DESIGN
CSB

DRAWN BY
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JJW

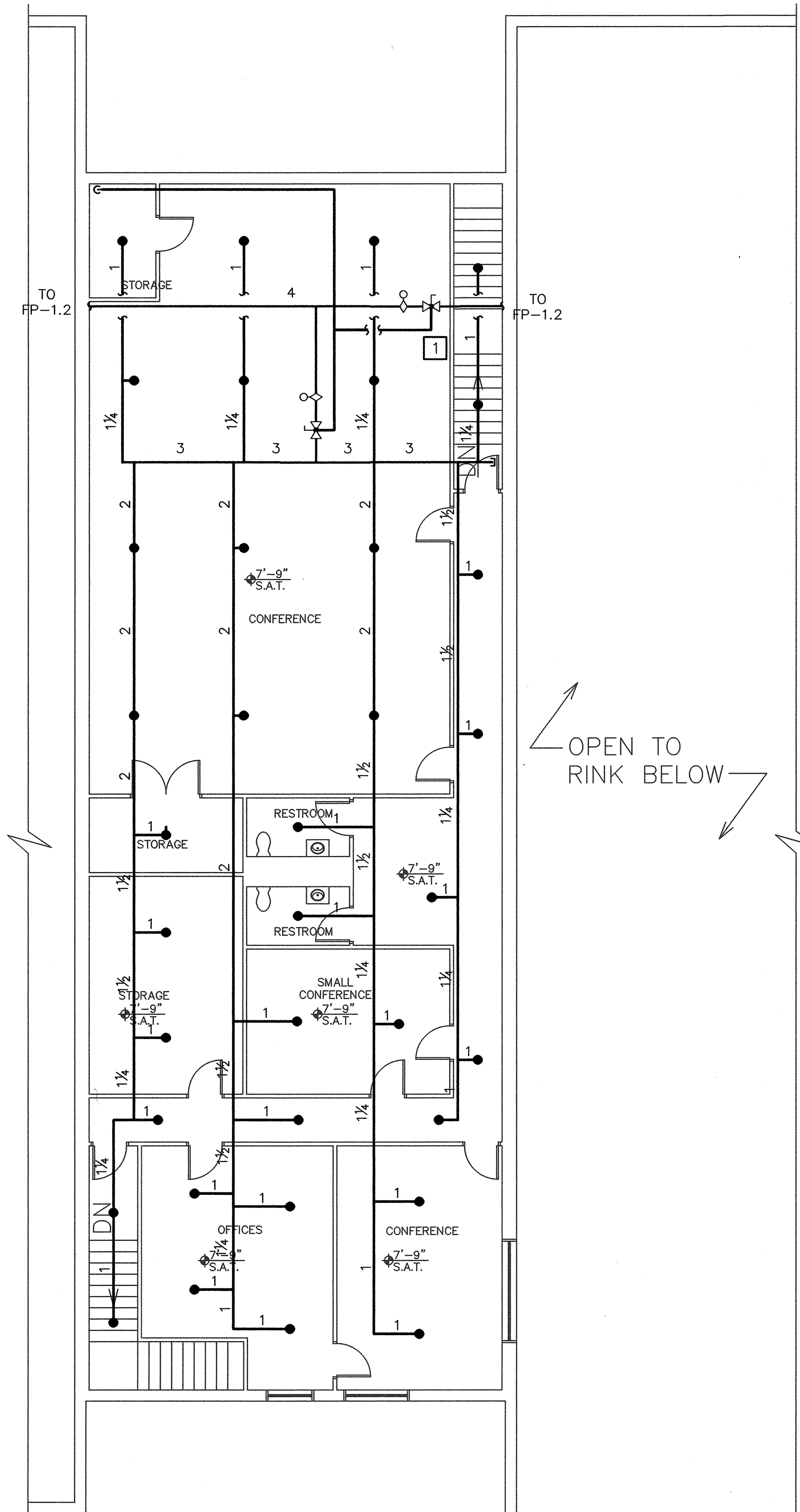
SCALE 1/8" = 1'-0"
0 4' 8' 16'

NOTE: IF DRAWING IS LESS THAN 24" X 36"
REDUCE GRAPHIC SCALE ACCORDINGLY.

TITLE
**975 SANDY LANE FIRE
PROTECTION- SECOND FLOOR
PLAN**

NUMBER
FP-1.4

SHEET
5 of 14



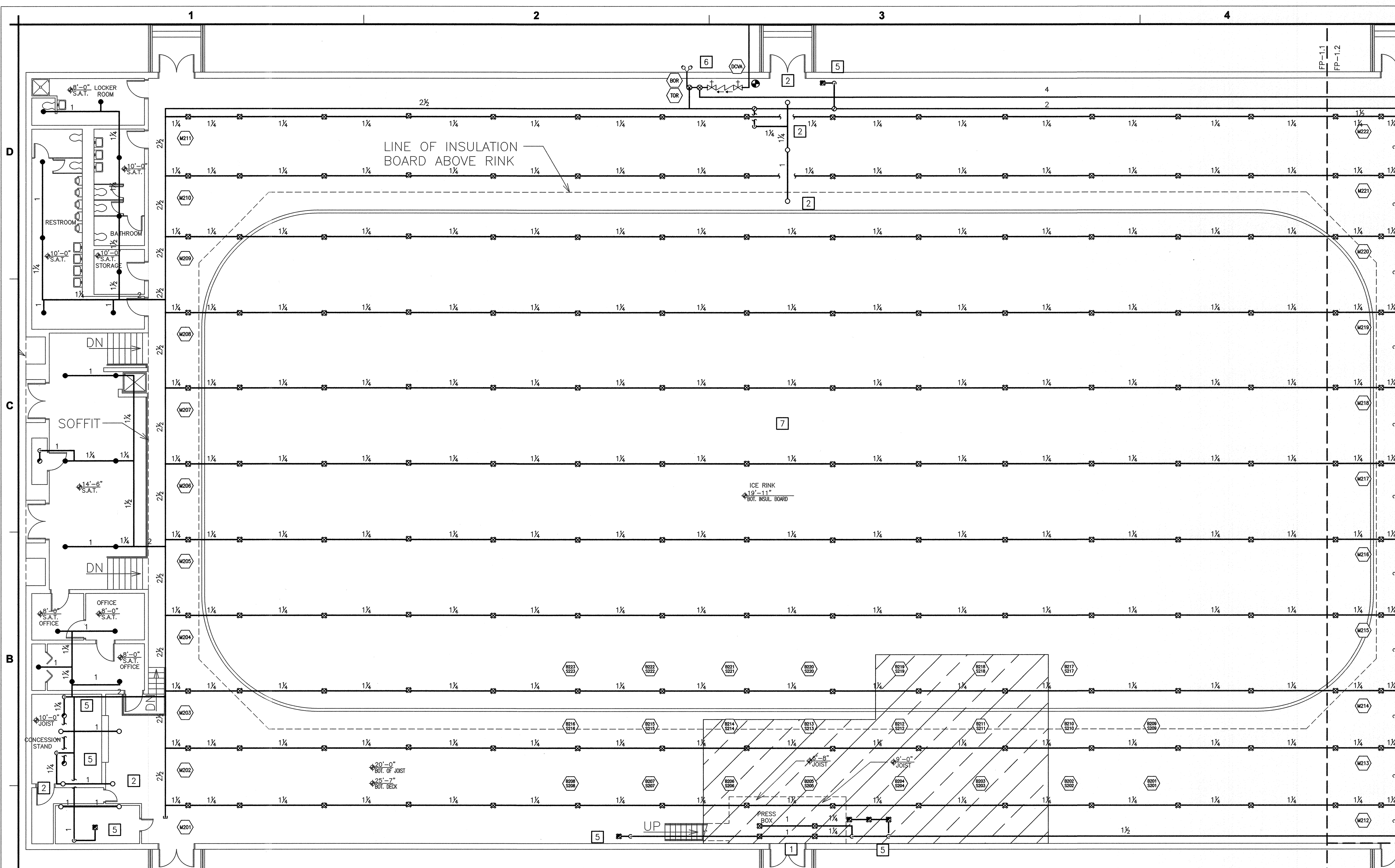
KEY NOTE

1 INSTALL DRAIN FROM INSPECTOR'S TEST VALVE TO EXTERIOR OF BUILDING.

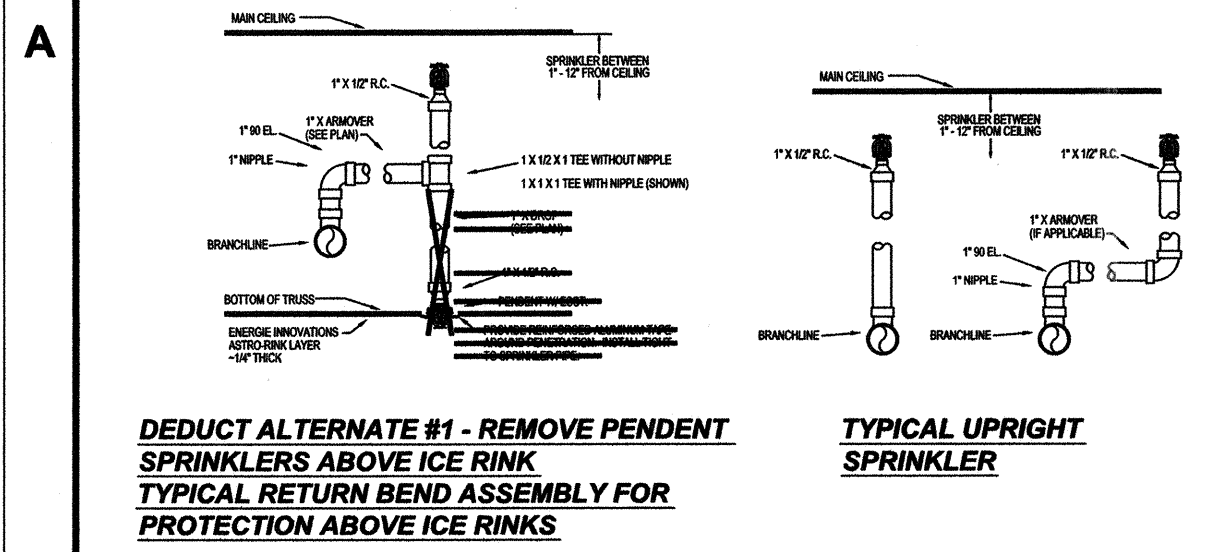
4 SECOND FLOOR FIRE SPRINKLER PLAN

SCALE: 1/8" = 1'-0"

0 4' 8' 16'
1/8" = 1'-0"



1 **PARTIAL FIRST FLOOR ALTERNATE FIRE SPRINKLER PLAN**
SCALE: 1/8" = 1'-0"



SHEET NOTE
1. DEDUCT ALTERNATE #1 - REMOVE ALL PENDENT SPRINKLERS FROM ABOVE THE ICE RINK. UPRIGHT SPRINKLERS AT CEILING LEVEL TO REMAIN. INSTALL SPRINKLERS AND TRIM PIPING IN ACCORDANCE WITH TYPICAL UPRIGHT SPRINKLER DETAIL.

SPRINKLER LEGEND							
SYMBOL	MANUFACTURER	MODEL	TYPE	RESPONSE	NPT	K-FACTOR	FINISH
●	TYCO	TY3531	CONCEALED PENDENT	QUICK	1/2"	5.6	BRASS
○	TYCO	TY3131	UPRIGHT	QUICK	1/2"	5.6	BRASS
◐	TYCO	TY3231	PENDENT	QUICK	1/2"	5.6	BRASS
▲	TYCO	TY5339	EXTENDED COVERAGE	QUICK	3/4"	11.2	CHROME
△	TYCO	TY3321	HORIZ. SIDEWALL	QUICK	1/2"	5.6	BRASS
×	TYCO	G1 or G4	SPRINKLER GUARD	-	-	-	-

HUGHES ASSOCIATES
ENGINEERS | CONSULTANTS | SCIENTISTS
117 METRO CENTER BOULEVARD | SUITE 1002
WARWICK | RHODE ISLAND | 02886
P 401.736.8992 | F 401.736.8929
www.hafire.com

SEAL

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KEY PLAN

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WARWICK, RI

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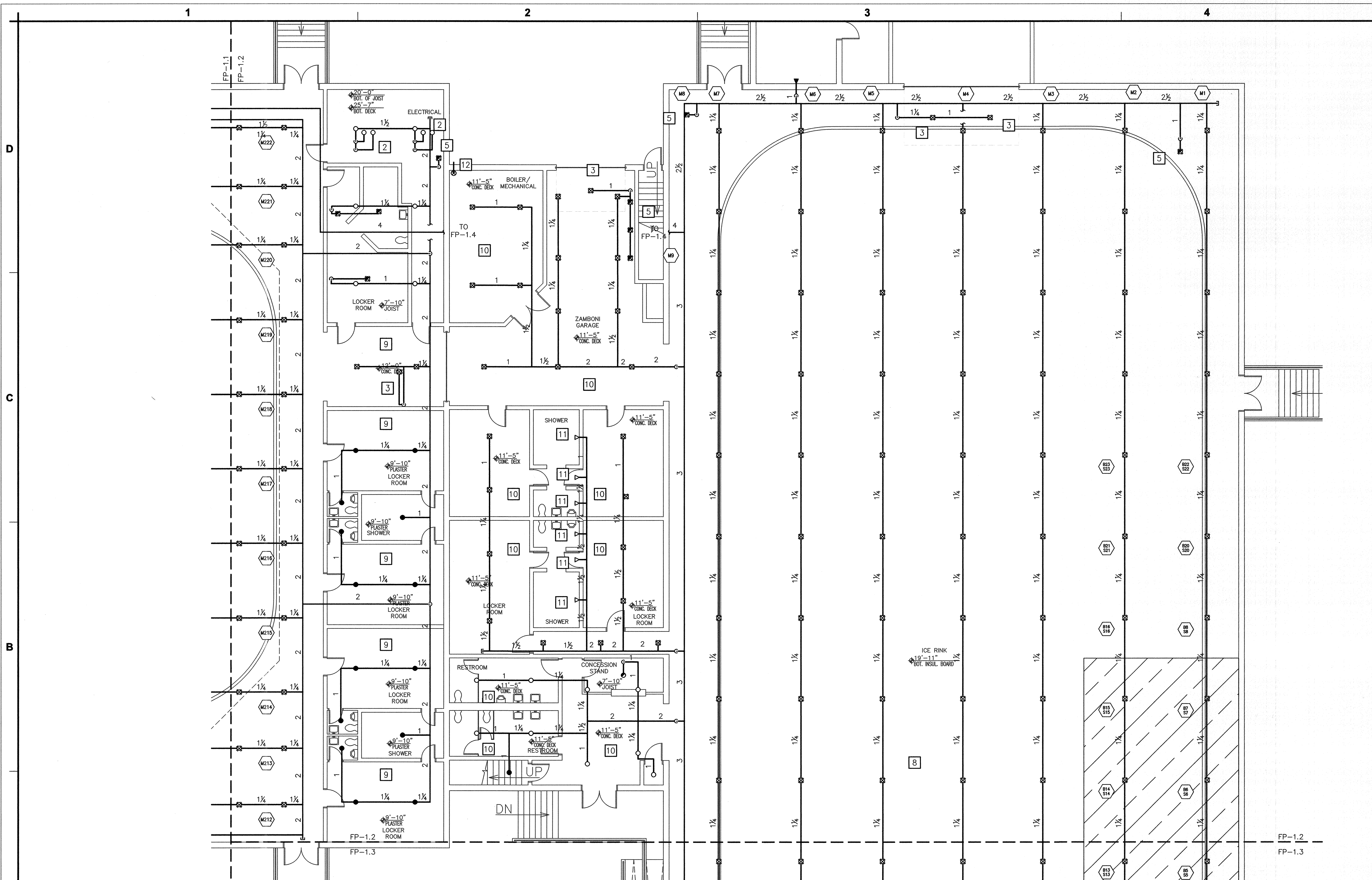
SCALE 1/8" = 1'-0"
4' 2' 0' 8' 16'

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TITLE
975 SANDY LANE FIRE PROTECTION- PARTIAL FIRST FLOOR ALTERNATE PLAN

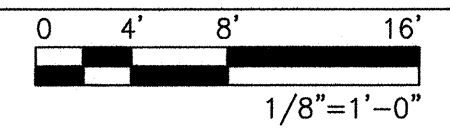
NUMBER
FP-A1.1

SHEET
6 of 14



1 PARTIAL FIRST FLOOR ALTERNATE FIRE SPRINKLER PLAN

SCALE: 1/8" = 1'-0"



SHEET NOTE

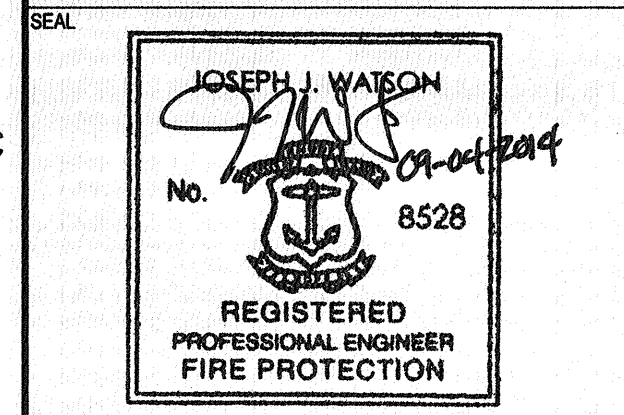
1. DEDUCT ALTERNATE 1- REMOVE ALL PENDENT SPRINKLERS FROM ABOVE THE ICE RINK. UPRIGHT SPRINKLERS AT CEILING LEVEL TO REMAIN. INSTALL SPRINKLERS AND TRIM PIPING IN ACCORDANCE WITH TYPICAL UPRIGHT SPRINKLER DETAIL.

DEDUCT ALTERNATE #1 - REMOVE PENDENT SPRINKLERS ABOVE ICE RINK
TYPICAL RETURN BEND ASSEMBLY FOR PROTECTION ABOVE ICE RINKS

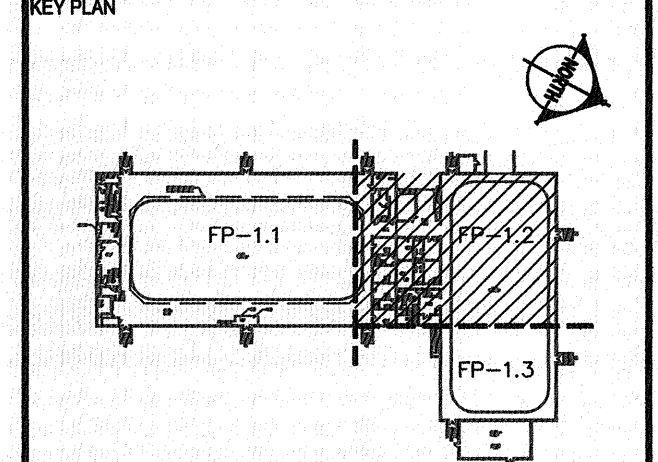
TYPICAL UPRIGHT SPRINKLER

SPRINKLER LEGEND								
SYMBOL	MANUFACTURER	MODEL	TYPE	RESPONSE	NPT	K-FACTOR	FINISH	ESCUTCHEON
●	TYCO	TY3531	CONCEALED PENDENT	QUICK	1/2"	5.6	BRASS	WHITE
○	TYCO	TY3131	UPRIGHT	QUICK	1/2"	5.6	BRASS	NONE
◐	TYCO	TY3231	PENDENT	QUICK	1/2"	5.6	BRASS	NONE
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×	TYCO	G1 or G4	SPRINKLER GUARD	-	-	-	-	-

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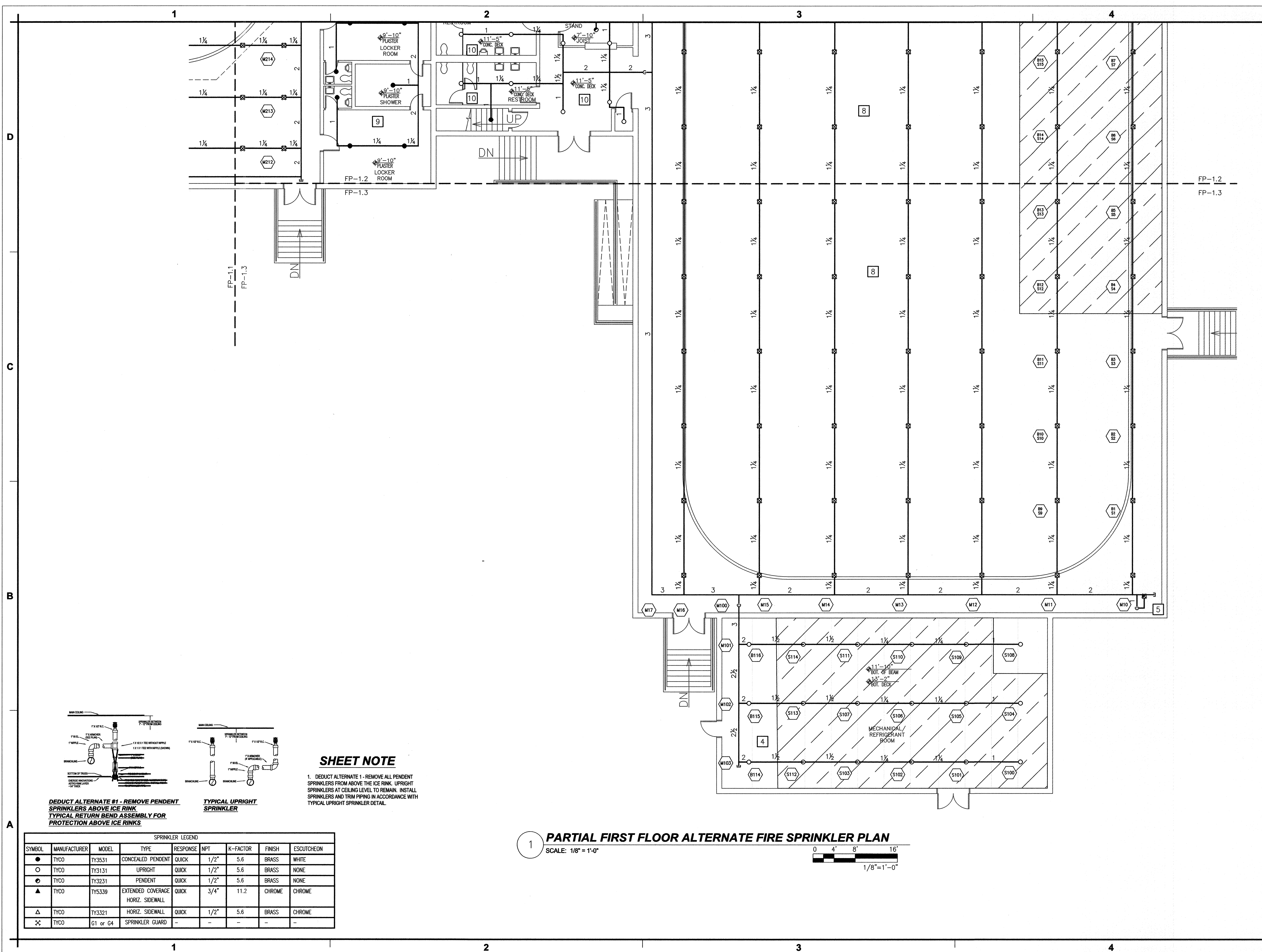
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4' 2' 0' 8' 16'

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TITLE
975 SANDY LANE FIRE PROTECTION- PARTIAL FIRST FLOOR ALTERNATE PLAN

NUMBER
FP-A1.2

SHEET
7 of 14



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PROJECT NO.
1JJW00218.001

DATE
SEPTEMBER 04, 2014

DESIGN
CSB

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SCALE 1/8" = 1'-0"

NOTE: IF DRAWING IS LESS THAN 24" X 36"
REDUCE GRAPHIC SCALE ACCORDINGLY.

TITLE

975 SANDY LANE FIRE PROTECTION- PARTIAL FIRST FLOOR ALTERNATE PLAN

NUMBER

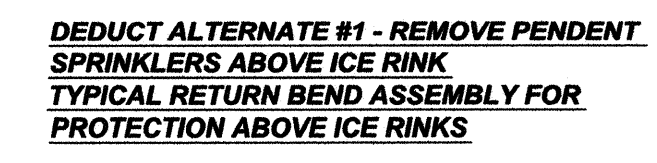
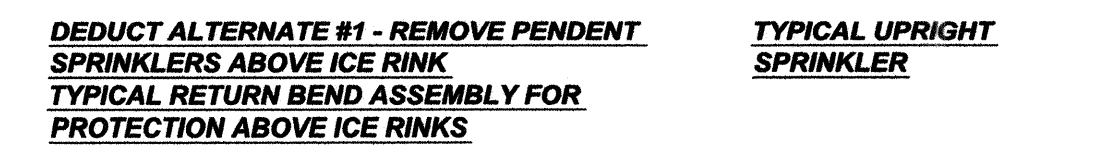
FP-A1.3

SHEET

8 of 14

SHEET NOTE

1. DEDUCT ALTERNATE 1 - REMOVE ALL PENDENT SPRINKLERS FROM ABOVE THE ICE RINK. UPRIGHT SPRINKLERS AT CEILING LEVEL TO REMAIN. INSTALL SPRINKLERS AND TRIM PIPING IN ACCORDANCE WITH TYPICAL UPRIGHT SPRINKLER DETAIL.



1 PARTIAL FIRST FLOOR ALTERNATE FIRE SPRINKLER PLAN
SCALE: 1/8" = 1'-0"

1/8" = 1'-0"

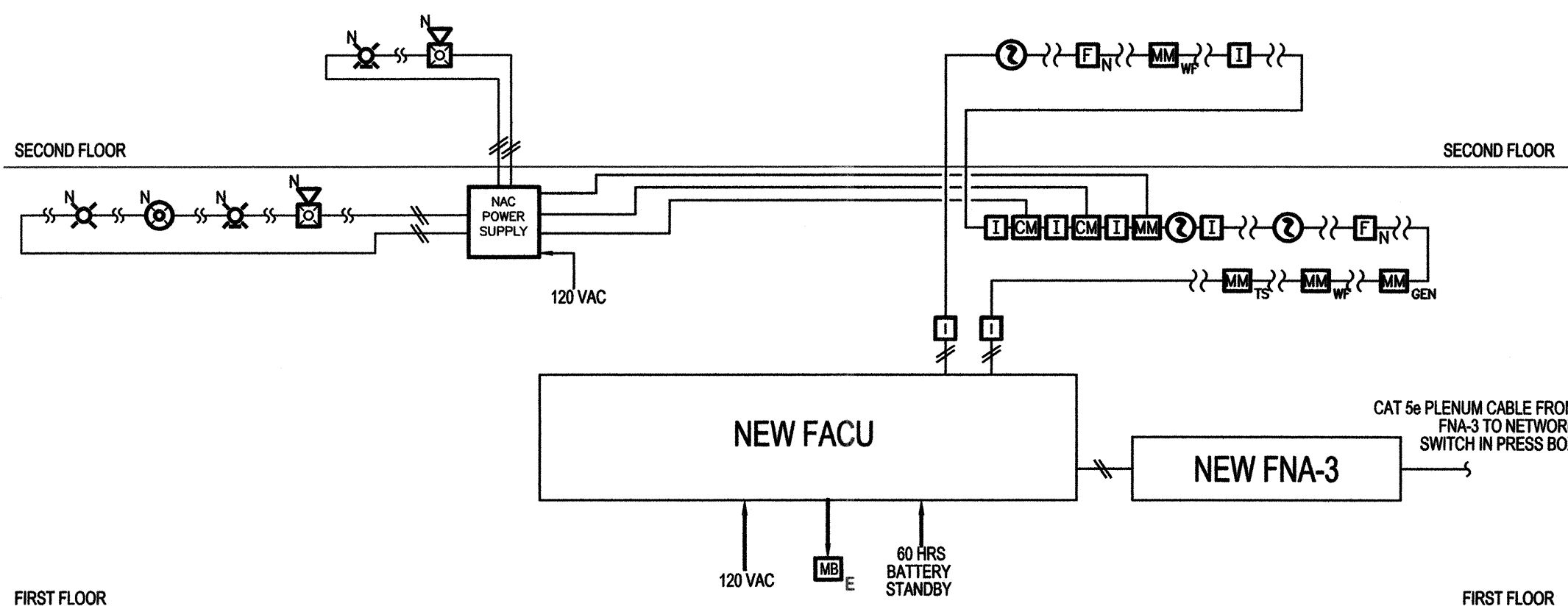
SPRINKLER LEGEND							
SYMBOL	MANUFACTURER	MODEL	TYPE	RESPONSE	NPT	K-FACTOR	FINISH
●	TYCO	TY3531	CONCEALED PENDENT	QUICK	1/2"	5.6	BRASS
○	TYCO	TY3131	UPRIGHT	QUICK	1/2"	5.6	BRASS
◐	TYCO	TY3231	PENDENT	QUICK	1/2"	5.6	BRASS
▲	TYCO	TY3339	EXTENDED COVERAGE HORIZ. SIDEWALL	QUICK	3/4"	11.2	CHROME
△	TYCO	TY3321	HORIZ. SIDEWALL	QUICK	1/2"	5.6	BRASS
✕	TYCO	G1 or G4	SPRINKLER GUARD	-	-	-	-

GENERAL NOTES

- THE FIRE ALARM SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH THE RHODE ISLAND FIRE CODE (NFPA 1-2012 EDITION, AS AMENDED), NFPA 72-2010 EDITION AND THE MASTER TECHNICAL SPECIFICATION PREPARED BY HUGHES ASSOCIATES, INC. (HAI).
- THE SCOPE OF WORK INCLUDES A COMPLETE REPLACEMENT OF THE EXISTING FIRE ALARM SYSTEM WITH A NEW ADDRESSABLE FIRE ALARM CONTROL UNIT, NEW NOTIFICATION APPLIANCES, NEW ADDRESSABLE DEVICES, NEW SIGNALING LINE CIRCUITS AND NEW NOTIFICATION APPLIANCE CIRCUITS, AS SHOWN ON THESE DRAWINGS AND TECHNICAL SPECIFICATIONS. THE CONTRACTOR SHALL DEMOLISH ALL EXISTING FIRE ALARM COMPONENTS, INCLUDING WIRE, IN THE BUILDING EXCEPT THE EXISTING RADIO MASTERBOX (#339), INCLUDED IN THE SCOPE OF WORK IS SCAFFOLDING, STAGING, RIGGING, OR HOISTING NECESSARY TO INSTALL ALL COMPONENTS, AS SHOWN ON THESE DRAWINGS. CONTRACTOR SHALL INSTALL FIRE NETWORK ADAPTER (FNA) IN PRESS BOX. CONTRACTOR SHALL CONNECT FNA AND NETWORK SWITCH IN PRESS BOX VIA MOHAWK CAT5e PLENUM CABLE. FIRE ALARM CONTROL UNIT AND FNA TO BE CONNECTED VIA TWISTED PAIR WIRE, PER MANUFACTURER'S REQUIREMENTS. CONTRACTOR SHALL PROVIDE 24VDC POWER TO FIRE NETWORK ADAPTER, PER MANUFACTURER'S REQUIREMENTS. INCLUDED IN THE SCOPE OF WORK IS PROGRAMMING OF THE FIRE ALARM CONTROL UNIT AND THE HONEYWELL ENTERPRISE BUILDING INTEGRATOR. CONTRACTOR SHALL INCLUDE IN THE BID ONE (1) YEAR OF HONEYWELL ENTERPRISE BUILDING INTEGRATOR LICENSE AGREEMENT FOR A TOTAL OF 250 POINTS (250 TOTAL FOR 955 AND 975 SANDY LANE). PROTECTIVE GUARDS SHALL BE PROVIDED FOR ALL NOTIFICATION APPLIANCES OPEN TO THE ICE RINKS AND LOCKER ROOMS. PROTECTIVE COVERS SHALL BE INSTALLED ON ALL FIRE ALARM BOXES ON THE FIRST FLOOR, EXCEPT IN THE MECHANICAL/REFRIGERANT ROOM. CONTRACTOR SHALL PROVIDE ONE (1) CONTROL MODULE PER MASTERBOX ZONE; INCLUDE ONE (1) CONTROL MODULE FOR GENERAL ALARM AND ONE (1) CONTROL MODULE FOR MAIN FLOW.
- THE SCOPE OF WORK INCLUDES FURNISHING ALL SERVICES, EQUIPMENT, PERMITS, TESTING, ETC. THAT ARE REQUIRED TO REPLACE THE EXISTING AUTOMATIC FIRE ALARM SYSTEM WITH A NEW ADDRESSABLE FIRE ALARM SYSTEM IN ACCORDANCE WITH THE APPLICABLE CODES AND STANDARDS AND AS INDICATED ON THE DRAWINGS AND IN THE TECHNICAL SPECIFICATIONS.
- PRIOR TO INSTALLATION, THE CONTRACTOR SHALL SUBMIT ALL PRODUCT DATA SHEETS, BATTERY CALCULATIONS, POINT-TO-POINT WIRING DIAGRAMS AND A SEQUENCE OF OPERATIONS TO THE OWNER FOR APPROVAL. REFER TO THE TECHNICAL SPECIFICATIONS FOR ADDITIONAL SUBMITTAL REQUIREMENTS.
- ALL NEW SIGNALING LINE CIRCUITS (SLC) SHALL BE INSTALLED CLASS A AND ALL NEW NOTIFICATION APPLIANCE CIRCUITS (NAC) SHALL BE INSTALLED CLASS A.
- ALL WIRING SHALL BE INSTALLED IN METAL RACEWAY OR APPROVED MC CABLE. MC CABLE SHALL ONLY BE INSTALLED ABOVE ACCESSIBLE CEILINGS. ALL WIRING SHALL BE INSTALLED FOLLOWING THE COLOR CODE OF RILSC SECTION 9.6.9.8.
- THE FIRE ALARM SYSTEM CONTRACTOR SHALL DETERMINE THE NUMBER OF ADDITIONAL REMOTE POWER SUPPLIES, IF NEEDED, TO SUPPORT ALL NOTIFICATION APPLIANCES SHOWN ON THE DRAWINGS. THE CONTRACTOR SHALL FIELD LOCATE THE ADDITIONAL REMOTE POWER SUPPLIES AND PROVIDE A PHOTOELECTRIC SMOKE DETECTOR IN THE IMMEDIATE VICINITY OF EACH REMOTE POWER SUPPLY. THE LOCATION OF EACH REMOTE POWER SUPPLY SHALL BE APPROVED BY THE OWNER AND ENGINEER. ALL REMOTE POWER SUPPLIES ARE REQUIRED TO BE TRIPPED VIA THE SIGNALING LINE CIRCUIT.
- ALL WALL-MOUNTED VISIBLE NOTIFICATION APPLIANCES AND COMBINATION AUDIBLE/VISIBLE NOTIFICATION APPLIANCES SHALL BE MOUNTED SUCH THAT THE ENTIRE LENS IS NOT LESS THAN 80 INCHES AND NOT GREATER THAN 96 INCHES ABOVE THE FINISHED FLOOR. ALL WALL-MOUNTED AUDIBLE NOTIFICATION APPLIANCES SHALL HAVE THEIR TOPS ABOVE THE FINISHED FLOORS AT HEIGHTS OF NOT LESS THAN 90 INCHES AND BELOW THE FINISHED CEILING AT DISTANCES NOT LESS THAN 6 INCHES.
- UPON COMPLETION OF THE INSTALLATION, THE CONTRACTOR SHALL SUBMIT CLOSEOUT DOCUMENTATION INCLUDING UPDATED ACCURATE AS-BUILT DRAWINGS TO THE OWNER, AS DESCRIBED IN THE TECHNICAL SPECIFICATION. THE UPDATED AS-BUILT DRAWINGS SHALL INDICATE THE EXACT LOCATION OF ALL CONTROL EQUIPMENT, DEVICES AND APPLIANCES ZONE DIAGRAMS. THE EXACT LOCATION OF ALL INSTALLED WIRING AND RACEWAY, INCLUDING THE NUMBER OF CONDUCTORS IN EACH PORTION OF THE CIRCUIT AND THE LOCATION OF JUNCTION BOXES AND TERMINAL CABINETS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COORDINATION WITH OTHER TRADES INCLUDING BUT NOT LIMITED TO SPRINKLER. BID SHALL INCLUDE ALL PERSONEL NECESSARY TO COMPLETE INTEGRATION BETWEEN FIRE ALARM AND OTHER TRADES.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL PAINTING AND PATCHING TO THE ORIGINAL STATE AND TO THE SATISFACTION OF THE OWNER.
- THE CONTRACTOR SHALL REMOVE, PROTECT, AND RE-INSTALL ALL EXISTING LAY-IN ACOUSTICAL TILE CEILINGS WHERE WORK IS REQUIRED ABOVE THE LAY-IN ACOUSTICAL CEILING. ANY TILES BROKEN SHALL BE REPLACED BY THE CONTRACTOR AT NO COST TO THE OWNER.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PAINTING OF ALL RACEWAY IN PUBLIC AREAS TO THE SATISFACTION OF THE OWNER.

RISER DIAGRAM NOTES

- THE RISER DIAGRAM IS CONCEPTUAL IN NATURE. IT DOES NOT INTEND TO REPRESENT ACTUAL WIRING AND RACEWAY INSTALLATION. ALL CONDUCTORS AND WIRING SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.



CONCEPTUAL PARTIAL RISER DIAGRAM

SCALE: NOT TO SCALE

FIRE ALARM OPERATIONS MATRIX	REQUIRED SYSTEM OUTPUTS									
	ANNUNCIATION AND INDICATION			OFF PREMISES SIGNAL TRANSMISSION			ANCILLARY FUNCTIONS			
SYSTEM INPUTS	KEYED TUBLE AND NOISE FIRE ALARM NOTIFICATION APPLIANCE INDICATOR AT FACU	KEYED TUBLE AND NOISE FIRE ALARM NOTIFICATION APPLIANCE SUPERVISORY INDICATOR AT FACU	KEYED TUBLE AND NOISE FIRE ALARM NOTIFICATION APPLIANCE SUPERVISORY INDICATOR AT FACU	PROVIDE DEVICE/FAULT INDICATION AT FACU	TRANSMIT FLAME SIGNAL TO WARWICK FIRE DEPARTMENT VIA EXISTING RADIO MASTERBOX HONEYWELL FIRE NETWORK ADAPTER	TRANSMIT FLAME SIGNAL TO WARWICK FIRE DEPARTMENT VIA EXISTING RADIO MASTERBOX HONEYWELL FIRE NETWORK ADAPTER	TRANSFER FIRE ALARM SYSTEM TO SECONDARY POWER	SHUTDOWN ALL SUPPLY / HR-HANDLING UNITS	SHUT DOWN SPECIFIC HVAC UNIT ON DUCT	DETECTOR ACTIVATION
ALARM SIGNALS										
MANUAL FIRE ALARM BOX	●	●		●	●	●				●
SPRINKLER WATERFLOW	●	●		●	●	●				●
AUTOMATIC DETECTION DEVICE (HEAT OR SMOKE DETECTOR) INITIATION	●	●		●	●	●				●
SUPERVISORY SIGNALS										
TRANSFER TO EMERGENCY POWER		●		●		●				
VALVE SUPERVISORY SWITCH		●		●		●				
DUCT DETECTOR ACTIVATION		●		●		●				●
TROUBLE SIGNALS										
OPEN CIRCUIT (SEE NOTE 2)		●			●	●				
CIRCUIT GROUND FAULT (SEE NOTE 1)		●			●	●				
AC POWER FAILURE (SEE NOTE 1)		●			●	●			●	

NOTE 1: SYSTEM SHALL REMAIN OPERATIONAL DURING FAULT.
NOTE 2: NOTIFICATION APPLIANCE CIRCUITS SHALL REMAIN OPERATIONAL.

SEQUENCE OF OPERATIONS

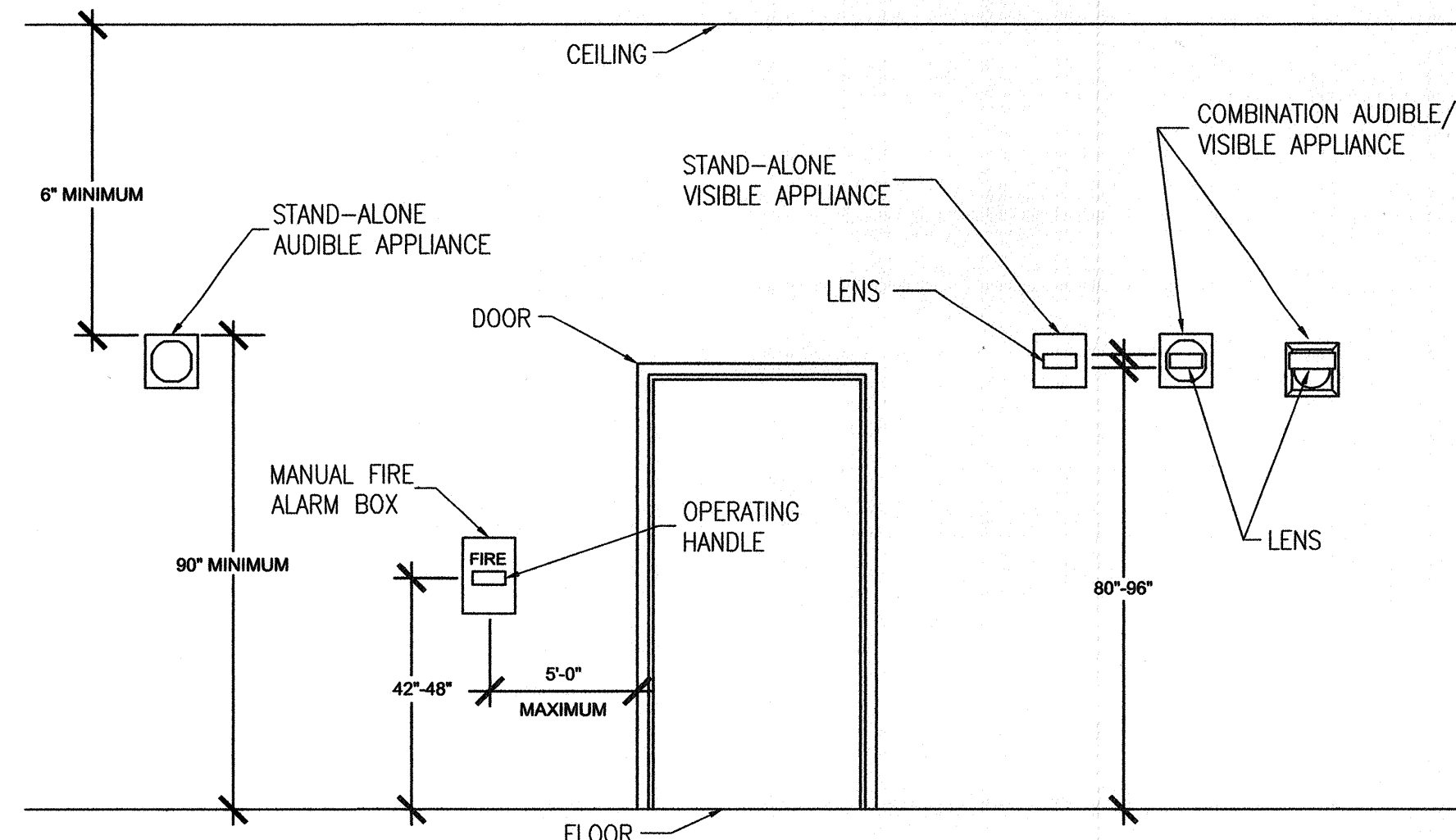
SYMBOLS LEGEND

②	ADDRESSABLE PHOTOELECTRIC SMOKE DETECTOR
①	ADDRESSABLE HEAT DETECTOR (COMBINATION 135°F RATE-OF-RISE UNLESS OTHERWISE NOTED)
F	ADDRESSABLE MANUAL FIRE ALARM BOX (DOUBLE-ACTION)
15cd	WALL-MOUNT HORN/STROBE NOTIFICATION APPLIANCES (CANDELA RATING AS NOTED)
15cd	WALL-MOUNT STROBE NOTIFICATION APPLIANCE (CANDELA RATING AS NOTED)
15cd	CEILING-MOUNT HORN/STROBE NOTIFICATION APPLIANCE (CANDELA RATING AS NOTED)
15cd	CEILING-MOUNT STROBE NOTIFICATION APPLIANCE (CANDELA RATING AS NOTED)
FACU	ADDRESSABLE FIRE ALARM CONTROL PANEL
MM	ADDRESSABLE MONITOR MODULE
CM	ADDRESSABLE CONTROL MODULE
I	FAULT ISOLATION MODULE
K	FIRE DEPARTMENT KNOX BOX
RTS	REMOTE TEST SWITCH
MB	RADIO MASTERBOX (EXISTING TO REMAIN)
FNA	FIRE NETWORK ADAPTER
NS	NETWORK SWITCH

SUBSCRIPTS:	
N	NEW DEVICE/APPLIANCE
E	EXISTING COMPONENT TO REMAIN
SNAC	REMOTE POWER SUPPLY
WP	WEATHERPROOF APPLIANCE
GA	MASTERBOX ZONE - GENERAL ALARM
WF	WATERFLOW DEVICE
TS	VALVE SUPERVISORY SWITCH
GEN	EMERGENCY GENERATOR
HVAC	HVAC SHUTDOWN
MF	MASTERBOX ZONE - MAIN FLOW

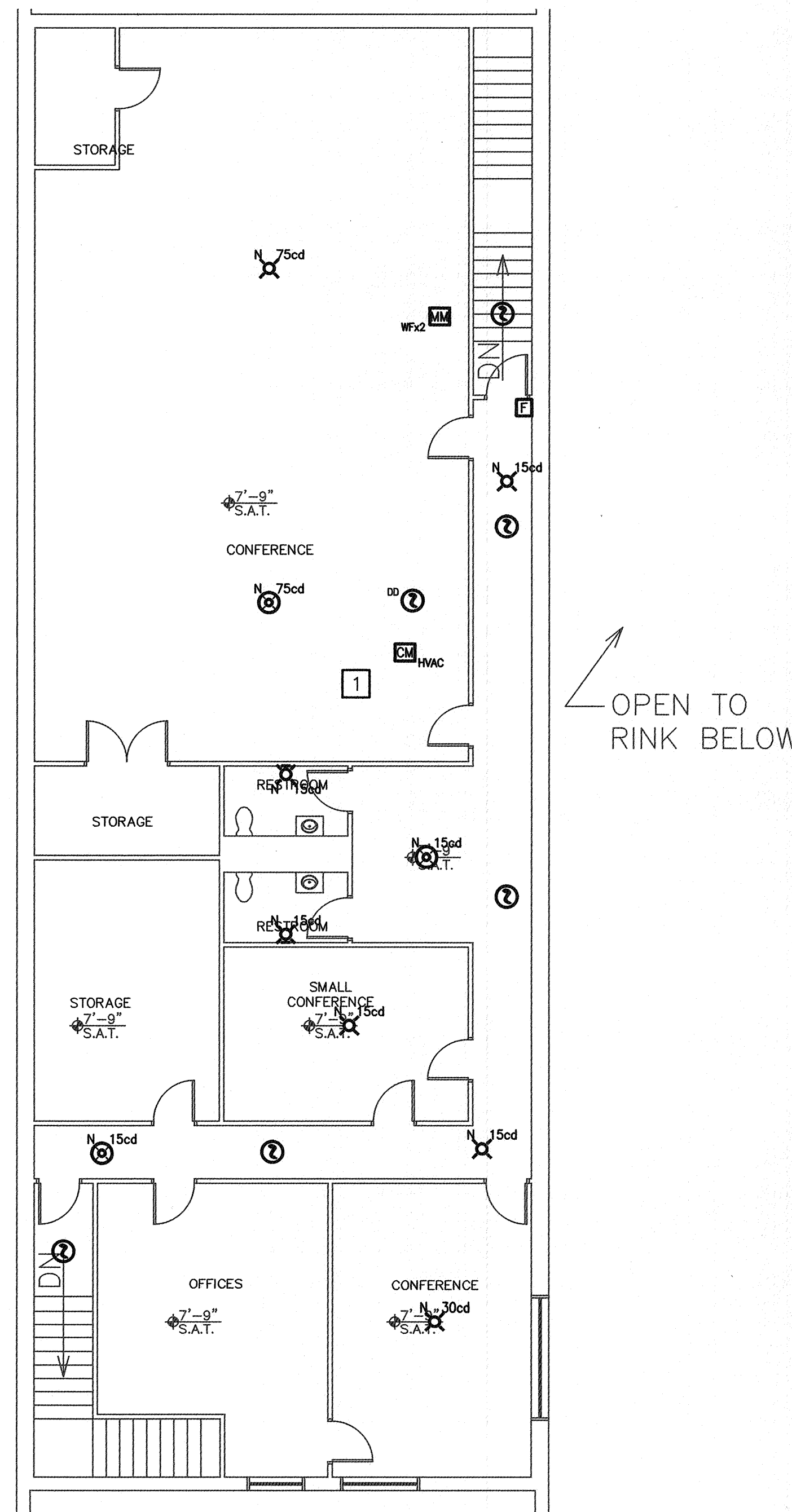
KEY NOTES

- INSTALL ALL EQUIPMENT NECESSARY TO SHUT DOWN ROOFTOP HVAC UNIT. INCLUDE RIB RELAY TO INTERFACE BETWEEN 24V DC ADDRESSABLE CONTROL MODULE AND LINE VOLTAGE. INSTALL DUCT SMOKE DETECTOR ON HVAC UNIT PRIOR TO ANY BRANCHES IN DUCT. ALL WIRING OUTSIDE THE BUILDING SHALL BE PROVIDED LIGHTNING SUPPRESSION AND SHALL BE INSTALLED IN LIQUID-TIGHT CONDUIT.



TYPICAL MOUNTING HEIGHT DETAIL FOR WALL-MOUNTED COMPONENTS

SCALE: NOT TO SCALE

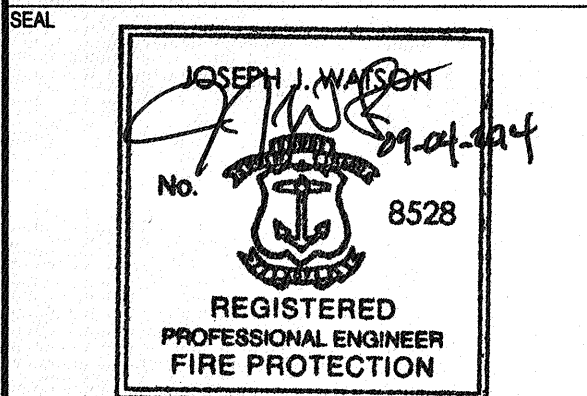


SECOND FLOOR FIRE ALARM PLAN

SCALE: 1/8" = 1'-0"

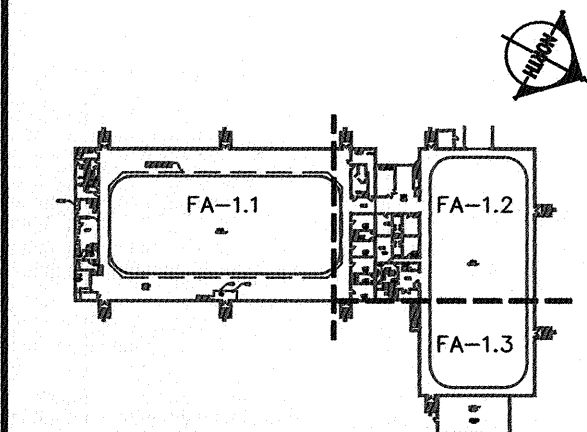
0 4' 8' 16'
1/8" = 1'-0"

HUGHES ASSOCIATES
ENGINEERS | CONSULTANTS | SCIENTISTS
117 METRO CENTER BOULEVARD | SUITE 1002
WARWICK | RHODE ISLAND | 02886
P 401.736.8992 | F 401.736.8929
www.hafire.com



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KEY PLAN



NO.	REVISION	DATE

FIRE ALARM AND SPRINKLER UPGRADES

ADDRESS
975 SANDY LANE
WARWICK, RI

PROJECT NO.
1JJW00218.001

DATE
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DESIGN
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CSB

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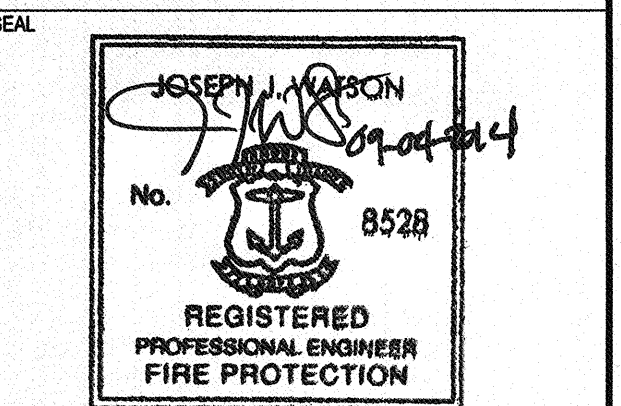
SCALE 1/8" = 1'-0"
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1/8" = 1'-0"

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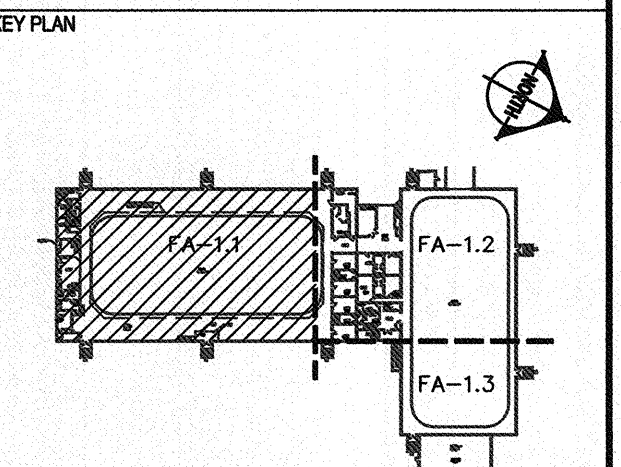
TITLE
975 SANDY LANE FIRE ALARM-
NOTES, LEGEND, DETAILS,
AND SECOND FLOOR PLAN

NUMBER
FA-1.0

SHEET
9 of 14



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TITLE
**975 SANDY LANE FIRE ALARM-
PARTIAL FIRST FLOOR PLAN**

NUMBER
FA-1.1

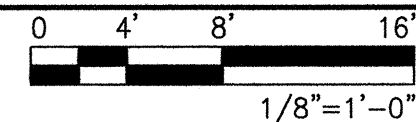
SHEET
10 of 14

KEY NOTES

- COORDINATE ABOVE ASTRO-RINK LAYER WORK WITH SPRINKLER CONTRACTOR AND OTHER TRADES. WORK ABOVE ASTRO-RINK LAYER TO BE COMPLETED WITHOUT REMOVAL OF ASTRO-RINK LAYER. CONTRACTOR SHALL PROVIDE ALL STAGING, HOISTING, SCAFFOLDING NECESSARY TO COMPLETE THE SCOPE OF WORK, AS SHOWN. ALL DAMAGED SECTIONS OF THE ASTRO-RINK LAYER SHALL BE RETURNED TO ORIGINAL CONDITION AT NO COST TO THE OWNER.
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- CONDUIT TO BE RUN EXPOSED ON CEILING.
- CONTRACTOR SHALL INSTALL AN ADDRESSABLE MONITOR MODULE FOR MONITORING THE EMERGENCY GENERATOR. LOCATE AT TRANSFER SWITCH.
- CONTRACTOR SHALL INSTALL FIRE NETWORK ADAPTER (FNA) IN PRESS BOX. CONTRACTOR SHALL CONNECT FNA AND NETWORK SWITCH IN PRESS BOX VIA MOHAWK CAT5 PLENUM CABLE. FIRE ALARM CONTROL UNIT AND FNA TO BE CONNECTED VIA TWISTED PAIR WIRE PER MANUFACTURER'S REQUIREMENTS. CONTRACTOR TO PROVIDE 24VDC TO FNA PER MANUFACTURER'S REQUIREMENTS.
- INSTALL PROTECTIVE COVERGUARD TO PROTECT NOTIFICATION APPLIANCE FROM MECHANICAL DAMAGE.
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FIRST FLOOR PARTIAL FIRE ALARM PLAN

SCALE: 1/8" = 1'-0"



1/8" = 1'-0"

LINE OF INSULATION
BOARD ABOVE RINK

ICE RINK
19'-11"
BOT. INSUL. BOARD

UP

PRESS BOX

FNA

NS

DN

FIT

SOFFIT

DN

OFFICE

8'-0" S.A.T.

OFFICE

8'-0" S.A.T.

CONCESSION STAND

10'-0" JOIST

75cd

15cd

10'-0" S.A.T.

10'-0" S.A.T.

10'-0" S.A.T.

10'-0" S.A.T.

10'-0" S.A.T.

10'-0" S.A.T.

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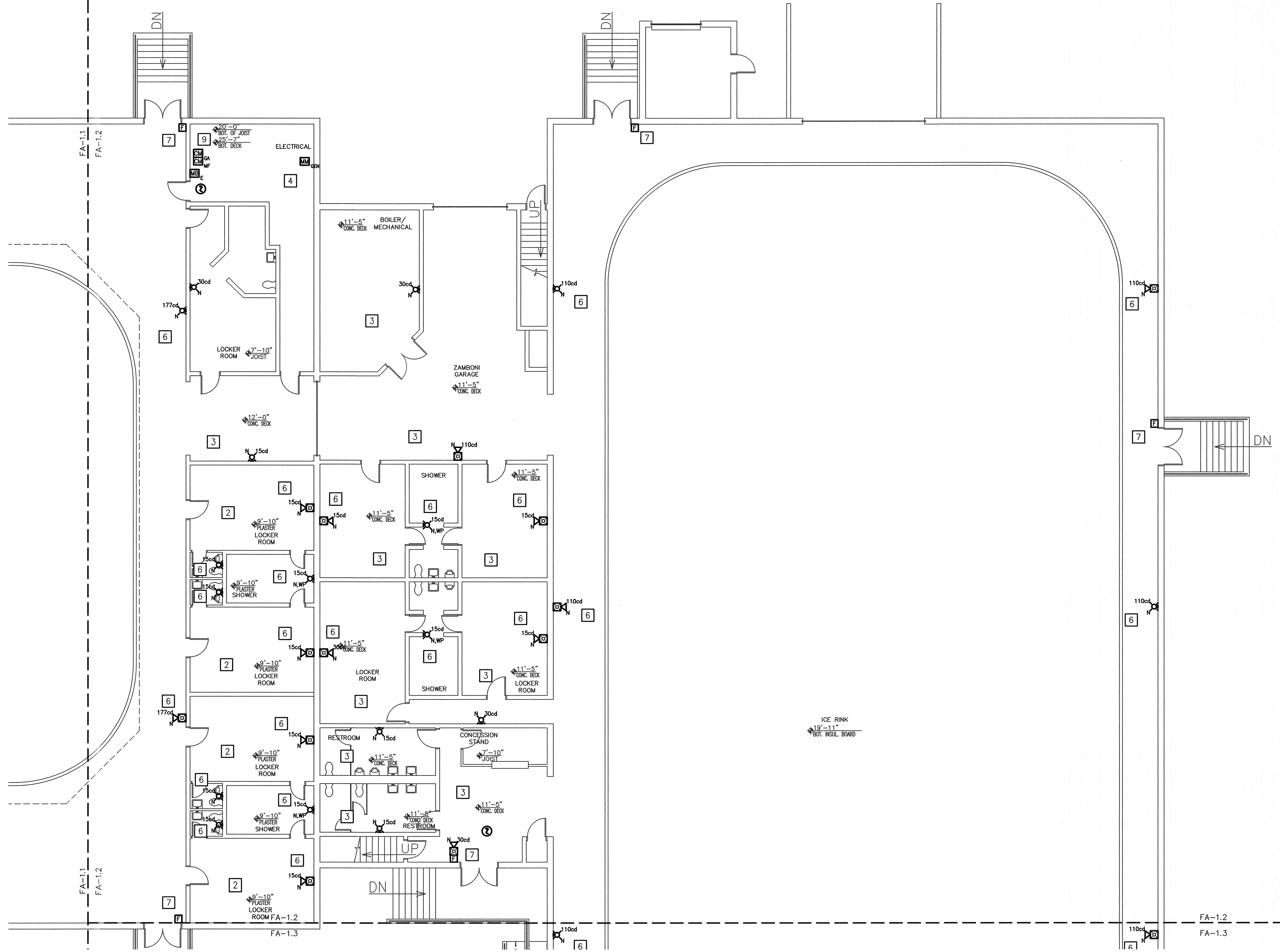
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1' 2' 0' 4' 8' 16'

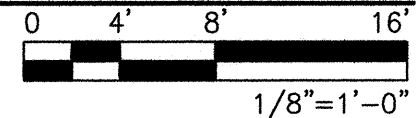
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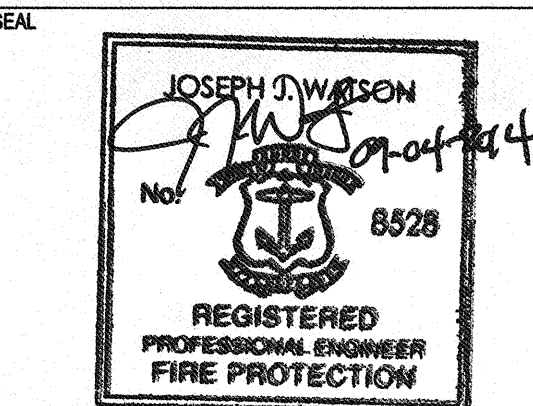
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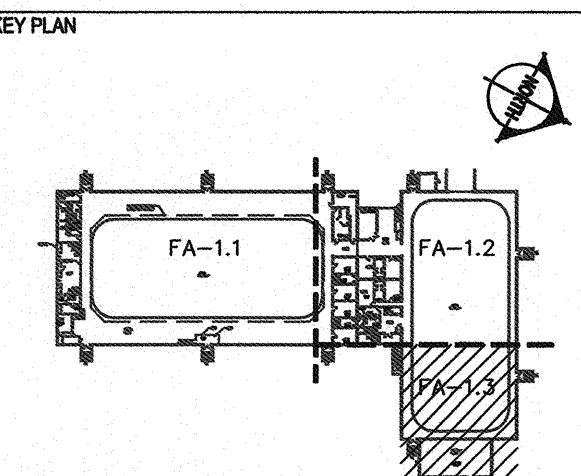
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7. INSTALL PROTECTIVE COVER ON FIRE ALARM BOX.
8. INSTALL NOTIFICATION APPLIANCE ON BOTTOM OF TRUSS. NOTIFY AND SIZE PER NFPA 72 SPACING REQUIREMENTS.
9. INSTALL ONE (1) CONTROL MODULE PER MASTERBOX ZONE. MASTERBOX TO REPORT GENERAL ALARM (AUTOMATIC DEVICE INITIATION AND MANUAL FIRE ALARM BOX ACTIVATION) AND SPRINKLER MAIN FLOW TO WARWICK FIRE DEPARTMENT.

SCALE: 1/8" = 1'-0"





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SPRINKLER UPGRADES**

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PARTIAL FIRST FLOOR PLAN**

NUMBER

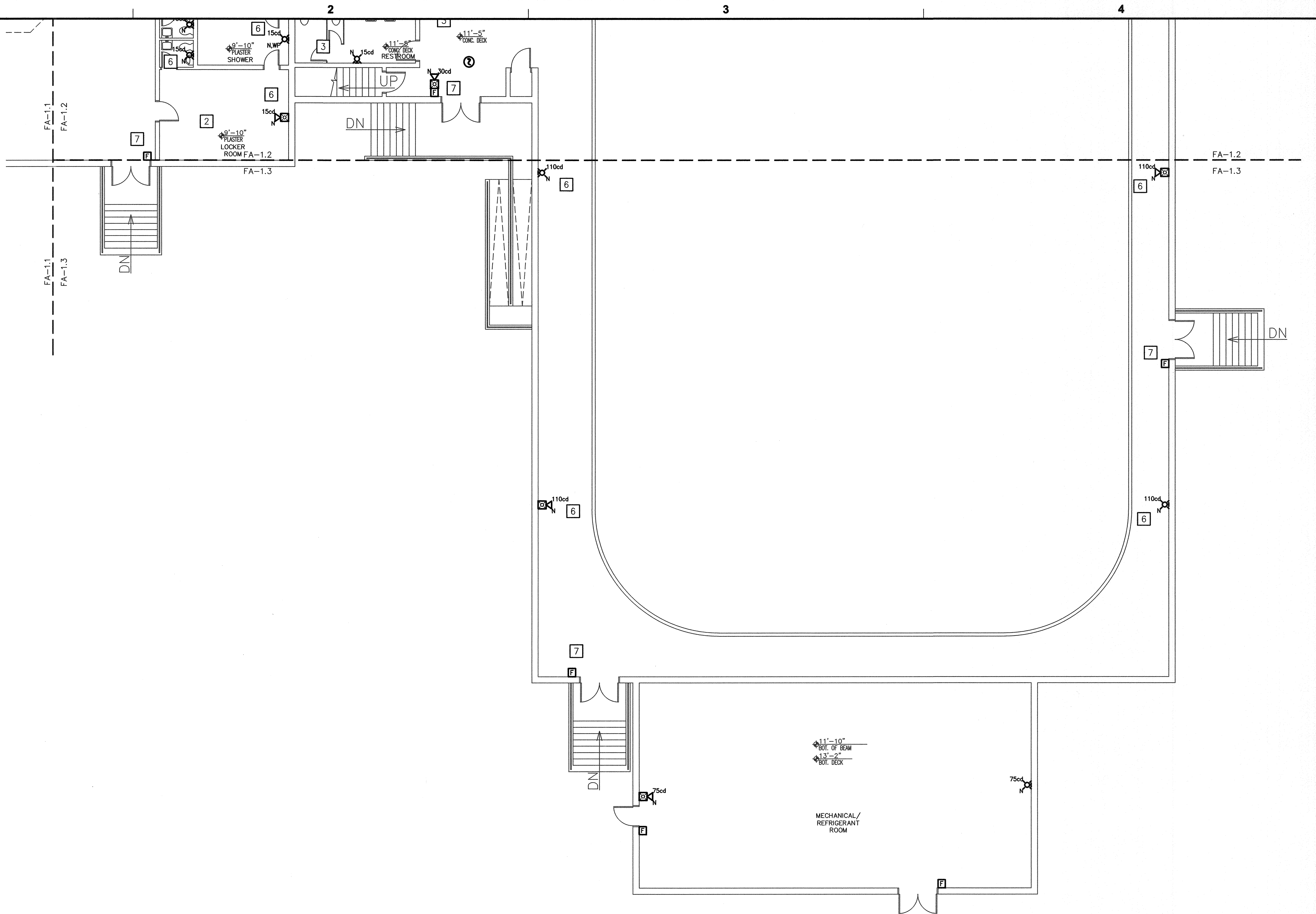
FA-1.3

SHEET 12 of 14

KEY NOTES

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1 FIRST FLOOR PARTIAL FIRE ALARM PLAN
SCALE: 1/8" = 1'-0"

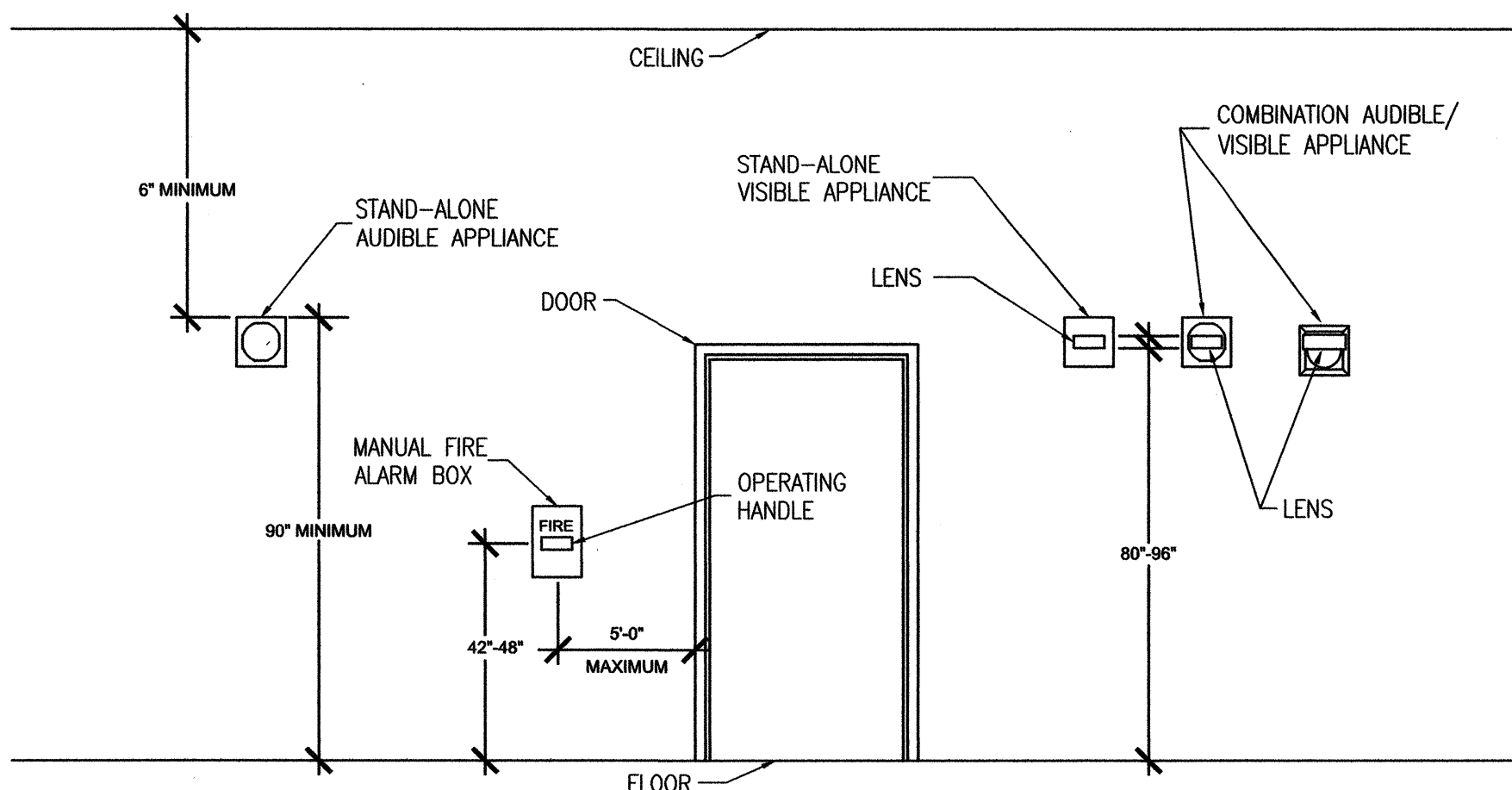


GENERAL NOTES

- THE FIRE ALARM SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH THE RHODE ISLAND FIRE CODE (NFPA 1-2012 EDITION, AS AMENDED), NFPA 72-2010 EDITION AND THE MASTER TECHNICAL SPECIFICATION PREPARED BY HUGHES ASSOCIATES, INC. (HAI).
- THE SCOPE OF WORK INCLUDES A COMPLETE REPLACEMENT OF THE EXISTING FIRE ALARM SYSTEM WITH A NEW ADDRESSABLE FIRE ALARM CONTROL UNIT, NEW NOTIFICATION APPLIANCES, NEW ADDRESSABLE DEVICES, NEW SIGNALING LINE CIRCUITS AND NEW NOTIFICATION APPLIANCE CIRCUITS, AS SHOWN ON THESE DRAWINGS. THE CONTRACTOR SHALL DEMOLISH ALL EXISTING FIRE ALARM COMPONENTS, INCLUDING WIRE, EXCEPT THE EXISTING RADIO MASTERBOX (#341). CONDUIT TO BE ABANDONED IN PLACE. INCLUDED IN THE SCOPE OF WORK IS SCAFFOLDING, STAGING, RIGGING, OR HOISTING NECESSARY TO INSTALL ALL COMPONENTS, AS SHOWN ON THESE DRAWINGS. CONTRACTOR SHALL INSTALL FIRE NETWORK ADAPTER (FNA) IN THE FIRE ALARM CLOSET. CONTRACTOR SHALL CONNECT FNA AND NETWORK SWITCH IN THE FIRE ALARM CLOSET VIA MOHAWK CAT5 PLENUM CABLE. FIRE ALARM CONTROL UNIT AND FNA TO BE CONNECTED VIA TWISTED PAIR WIRE, PER MANUFACTURER'S REQUIREMENTS. CONTRACTOR SHALL PROVIDE 24VDC POWER TO FIRE NETWORK ADAPTER, PER MANUFACTURER'S REQUIREMENTS. INCLUDED IN THE SCOPE OF WORK IS PROGRAMMING OF THE FIRE ALARM CONTROL UNIT AND THE HONEYWELL ENTERPRISE BUILDING INTEGRATOR. CONTRACTOR SHALL INCLUDE IN THE BID ONE (1) YEAR OF HONEYWELL ENTERPRISE BUILDING INTEGRATOR LICENSE AGREEMENT FOR A TOTAL OF 250 POINTS (250 TOTAL FOR 955 AND 975 SANDY LANE). CONTRACTOR SHALL PROVIDE ONE (1) CONTROL MODULE PER MASTERBOX ZONE; INCLUDE ONE (1) CONTROL MODULE FOR GENERAL ALARM.
- THE SCOPE OF WORK INCLUDES FURNISHING ALL SERVICES, EQUIPMENT, PERMITS, TESTING, ETC. THAT ARE REQUIRED TO REPLACE THE EXISTING AUTOMATIC FIRE ALARM SYSTEM WITH A NEW ADDRESSABLE FIRE ALARM SYSTEM IN ACCORDANCE WITH THE APPLICABLE CODES AND STANDARDS AND AS INDICATED ON THE DRAWINGS AND IN THE TECHNICAL SPECIFICATIONS.
- PRIOR TO INSTALLATION, THE CONTRACTOR SHALL SUBMIT ALL PRODUCT DATA SHEETS, BATTERY CALCULATIONS, POINT-TO-POINT WIRING DIAGRAMS AND A SEQUENCE OF OPERATIONS TO THE OWNER FOR APPROVAL. REFER TO THE TECHNICAL SPECIFICATIONS FOR ADDITIONAL SUBMITTAL REQUIREMENTS.
- ALL NEW SIGNALING LINE CIRCUITS (SLC) SHALL BE INSTALLED CLASS A AND ALL NEW NOTIFICATION APPLIANCE CIRCUITS (NAC) SHALL BE INSTALLED CLASS A.
- ALL NEW WIRING SHALL BE INSTALLED IN METAL RACEWAY OR APPROVED MC CABLE. MC CABLE SHALL ONLY BE INSTALLED ABOVE ACCESSIBLE CEILINGS. ALL WIRING SHALL BE INSTALLED FOLLOWING THE COLOR CODE OF RILSC SECTION 9.6.9.8.
- THE SCOPE OF WORK INCLUDES DEMOLITION OF ALL EXISTING FIRE ALARM EQUIPMENT, INCLUDING ALL WIRING AND CONDUIT, EXCEPT EXISTING RADIO MASTERBOXES (#339 AND #341).
- THE FIRE ALARM SYSTEM CONTRACTOR SHALL DETERMINE THE NUMBER OF ADDITIONAL REMOTE POWER SUPPLIES, IF NEEDED, TO SUPPORT ALL NOTIFICATION APPLIANCES SHOWN ON THE DRAWINGS. THE CONTRACTOR SHALL FIELD LOCATE THE ADDITIONAL REMOTE POWER SUPPLIES AND PROVIDE A PHOTOELECTRIC SMOKE DETECTOR IN THE IMMEDIATE VICINITY OF EACH REMOTE POWER SUPPLY. THE LOCATION OF EACH REMOTE POWER SUPPLY SHALL BE APPROVED BY THE OWNER AND ENGINEER. ALL REMOTE POWER SUPPLIES ARE REQUIRED TO BE TRIPPED VIA THE SIGNALING LINE CIRCUIT.
- ALL WALL-MOUNTED VISIBLE NOTIFICATION APPLIANCES AND COMBINATION AUDIBLE/VISIBLE NOTIFICATION APPLIANCES SHALL BE MOUNTED SUCH THAT THE ENTIRE LENS IS NOT LESS THAN 80 INCHES AND NOT GREATER THAN 96 INCHES ABOVE THE FINISHED FLOOR. ALL WALL-MOUNTED AUDIBLE NOTIFICATION APPLIANCES SHALL HAVE THEIR TOPS ABOVE THE FINISHED FLOORS AT HEIGHTS OF NOT LESS THAN 90 INCHES AND BELOW THE FINISHED CEILING AT DISTANCES NOT LESS THAN 6 INCHES.
- UPON COMPLETION OF THE INSTALLATION, THE CONTRACTOR SHALL SUBMIT CLOSEOUT DOCUMENTATION INCLUDING UPDATED ACCURATE AS-BUILT DRAWINGS TO THE OWNER, AS DESCRIBED IN THE TECHNICAL SPECIFICATION. THE UPDATED AS-BUILT DRAWINGS SHALL INDICATE THE EXACT LOCATION OF ALL CONTROL EQUIPMENT, DEVICES AND APPLIANCES ZONE DIAGRAMS, THE EXACT LOCATION OF ALL INSTALLED WIRING AND RACEWAY, INCLUDING THE NUMBER OF CONDUCTORS IN EACH PORTION OF THE CIRCUIT AND THE LOCATION OF JUNCTION BOXES AND TERMINAL CABINETS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COORDINATION WITH OTHER TRADES INCLUDING BUT NOT LIMITED TO SPRINKLER. BID SHALL INCLUDE ALL PERSONEL NECESSARY TO COMPLETE INTEGRATION BETWEEN FIRE ALARM AND OTHER TRADES.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL PAINTING AND PATCHING TO THE ORIGINAL STATE AND TO THE SATISFACTION OF THE OWNER.
- THE CONTRACTOR SHALL REMOVE, PROTECT, AND RE-INSTALL ALL EXISTING LAY-IN ACOUSTICAL TILE CEILINGS WHERE WORK IS REQUIRED ABOVE THE LAY-IN ACOUSTICAL CEILING. ANY TILES BROKEN SHALL BE REPLACED BY THE CONTRACTOR AT NO COST TO THE OWNER.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PAINTING OF ALL RACEWAY IN PUBLIC AREAS TO THE SATISFACTION OF THE OWNER.

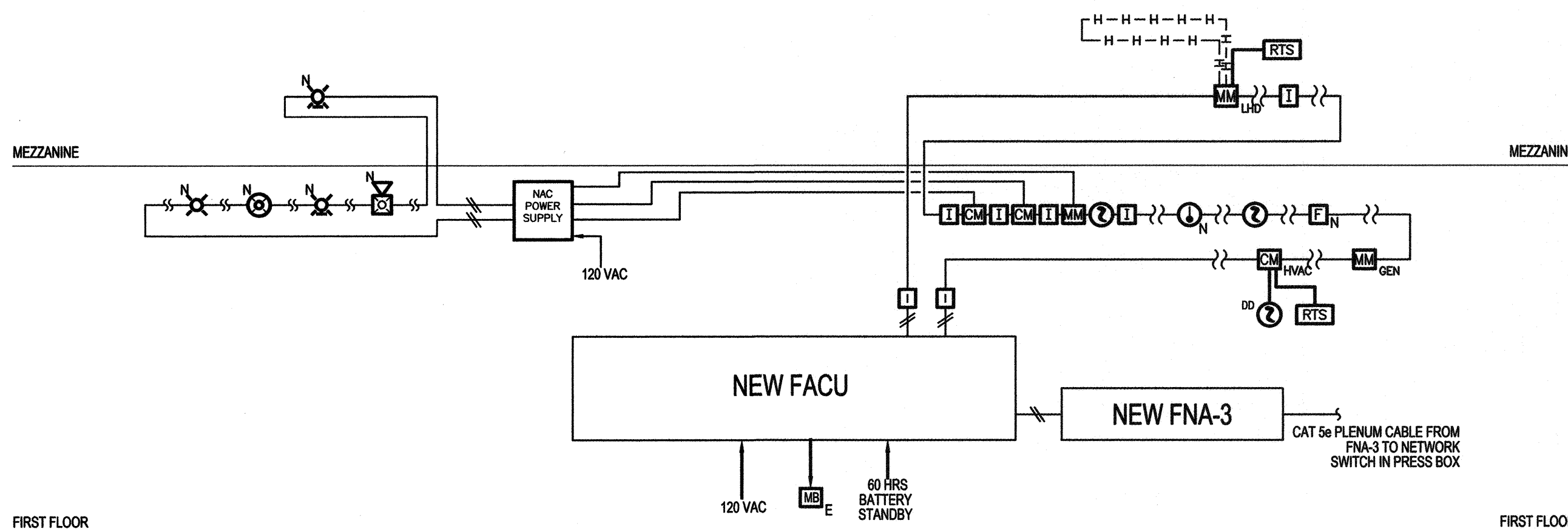
RISER DIAGRAM NOTES

- THE RISER DIAGRAM IS CONCEPTUAL IN NATURE. IT DOES NOT INTEND TO REPRESENT ACTUAL WIRING AND RACEWAY INSTALLATION. ALL CONDUCTORS AND WIRING SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.



**TYPICAL MOUNTING HEIGHT DETAIL
FOR WALL-MOUNTED COMPONENTS**

SCALE: NOT TO SCALE



CONCEPTUAL PARTIAL RISER DIAGRAM

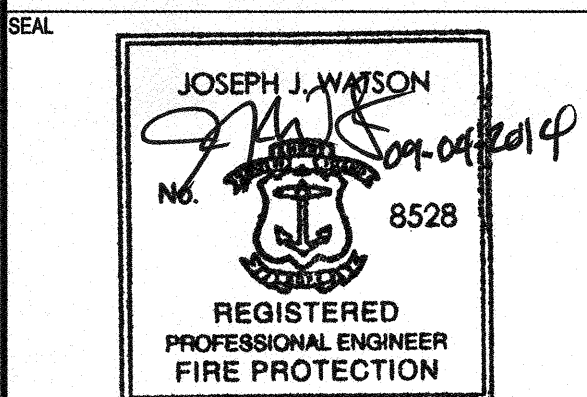
SCALE: NOT TO SCALE

FIRE ALARM OPERATIONS MATRIX	REQUIRED SYSTEM OUTPUTS											
	ANNUNCIATION AND INDICATION				OFF PREMISES SIGNAL TRANSMISSION				ANCILLARY FUNCTIONS			
SYSTEM INPUTS	ACTIVATE AUDIBLE AND VISIBLE FIRE ALARM NOTIFICATION APPLIANCES	ACTIVATE AUDIBLE AND VISIBLE FIRE ALARM NOTIFICATION APPLIANCES	ACTIVATE AUDIBLE AND VISIBLE FIRE ALARM NOTIFICATION APPLIANCES	ACTIVATE AUDIBLE AND VISIBLE FIRE ALARM NOTIFICATION APPLIANCES	ACTIVATE AUDIBLE AND VISIBLE FIRE ALARM NOTIFICATION APPLIANCES	ACTIVATE AUDIBLE AND VISIBLE FIRE ALARM NOTIFICATION APPLIANCES	ACTIVATE AUDIBLE AND VISIBLE FIRE ALARM NOTIFICATION APPLIANCES	ACTIVATE AUDIBLE AND VISIBLE FIRE ALARM NOTIFICATION APPLIANCES	ACTIVATE AUDIBLE AND VISIBLE FIRE ALARM NOTIFICATION APPLIANCES	ACTIVATE AUDIBLE AND VISIBLE FIRE ALARM NOTIFICATION APPLIANCES	ACTIVATE AUDIBLE AND VISIBLE FIRE ALARM NOTIFICATION APPLIANCES	ACTIVATE AUDIBLE AND VISIBLE FIRE ALARM NOTIFICATION APPLIANCES
ALARM SIGNALS												
MANUAL FIRE ALARM BOX	●	●		●	●	●		●				
AUTOMATIC DETECTION DEVICE (HEAT OR SMOKE DETECTOR) INITIATION	●	●		●	●	●		●				
LINEAR HEAT DETECTION	●	●		●	●	●		●				
SUPERVISORY SIGNALS												
TRANSFER TO EMERGENCY POWER		●		●		●						
DUCT DETECTOR ACTIVATION		●		●		●				●		
TROUBLE SIGNALS												
OPEN CIRCUIT (SEE NOTE 2)			●			●						
CIRCUIT GROUND FAULT (SEE NOTE 1)			●			●						
AC POWER FAILURE (SEE NOTE 1)			●			●			●			

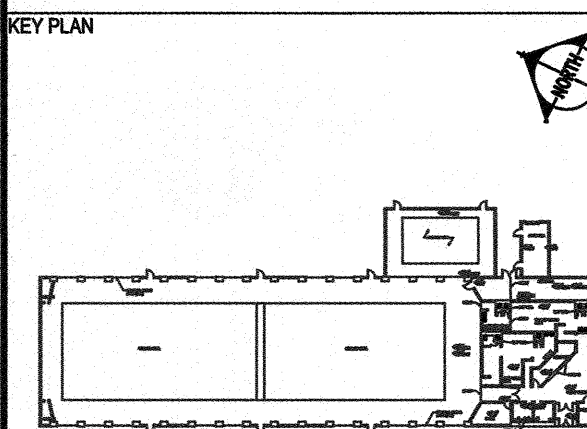
NOTE 1: SYSTEM SHALL REMAIN OPERATIONAL DURING FAULT.
NOTE 2: NOTIFICATION APPLIANCE CIRCUITS SHALL REMAIN OPERATIONAL.

SEQUENCE OF OPERATIONS

SYMBOLS LEGEND			
②	ADDRESSABLE PHOTOELECTRIC SMOKE DETECTOR		
②	ADDRESSABLE DUCT DETECTOR		
①	ADDRESSABLE HEAT DETECTOR (COMBINATION 135°F RATE-OF-RISE UNLESS OTHERWISE NOTED)		
F	ADDRESSABLE MANUAL FIRE ALARM BOX (DOUBLE-ACTION)		
②-15cd	WALL-MOUNT HORN/STROBE NOTIFICATION APPLIANCES (CANDELA RATING AS NOTED)		
②-15cd	WALL-MOUNT STROBE NOTIFICATION APPLIANCE (CANDELA RATING AS NOTED)		
②-15cd	CEILING-MOUNT HORN/STROBE NOTIFICATION APPLIANCE (CANDELA RATING AS NOTED)		
②-15cd	CEILING-MOUNT STROBE NOTIFICATION APPLIANCE (CANDELA RATING AS NOTED)		
FACU	ADDRESSABLE FIRE ALARM CONTROL PANEL		
MM	ADDRESSABLE MONITOR MODULE		
CM	ADDRESSABLE CONTROL MODULE		
FI	FAULT ISOLATION MODULE		
H-H-H	LINEAR HEAT DETECTION (PROTECTOWIRE MODEL PLR, TEMPERATURE RATING AS NOTED)		
K	FIRE DEPARTMENT KNOX BOX		
RTS	REMOTE TEST SWITCH		
MB	RADIO MASTERBOX (EXISTING TO REMAIN)		
FNA	FIRE NETWORK ADAPTER		
NS	NETWORK SWITCH		
SUBSCRIPTS:			
N	NEW DEVICE/APPLIANCE	190	190°F HEAT DETECTOR
E	EXISTING COMPONENT TO REMAIN	LHD	LINEAR HEAT DETECTION
WP	WEATHERPROOF APPLIANCE	HVAC	CONTROLS HVAC UNIT
GEN	EMERGENCY GENERATOR	GA	MASTERBOX ZONE - GENERAL ALARM



IT IS A VIOLATION OF STATE LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED ENGINEER, TO ALTER THIS DRAWING IN ANY WAY. IF AN ITEM IS ALTERED, THE ALTERING ENGINEER SHALL AFFIX TO THE ITEM HIS/HER SEAL AND THE NOTATION "ALTERED BY" FOLLOWED BY HIS/HER SIGNATURE AND THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.



NO.	REVISION	DATE

FIRE ALARM AND SPRINKLER UPGRADE

ADDRESS
955 SANDY LANE
WARWICK, RI

PROJECT NO
1JJW00218.001

DATE
SEPTEMBER 04, 2014

DESIGN
CSB

DRAWN BY
CSB

CHECKED BY
JJW

SCALE 1/8" = 1'-0"
4' 2' 0' 4' 8' 16'

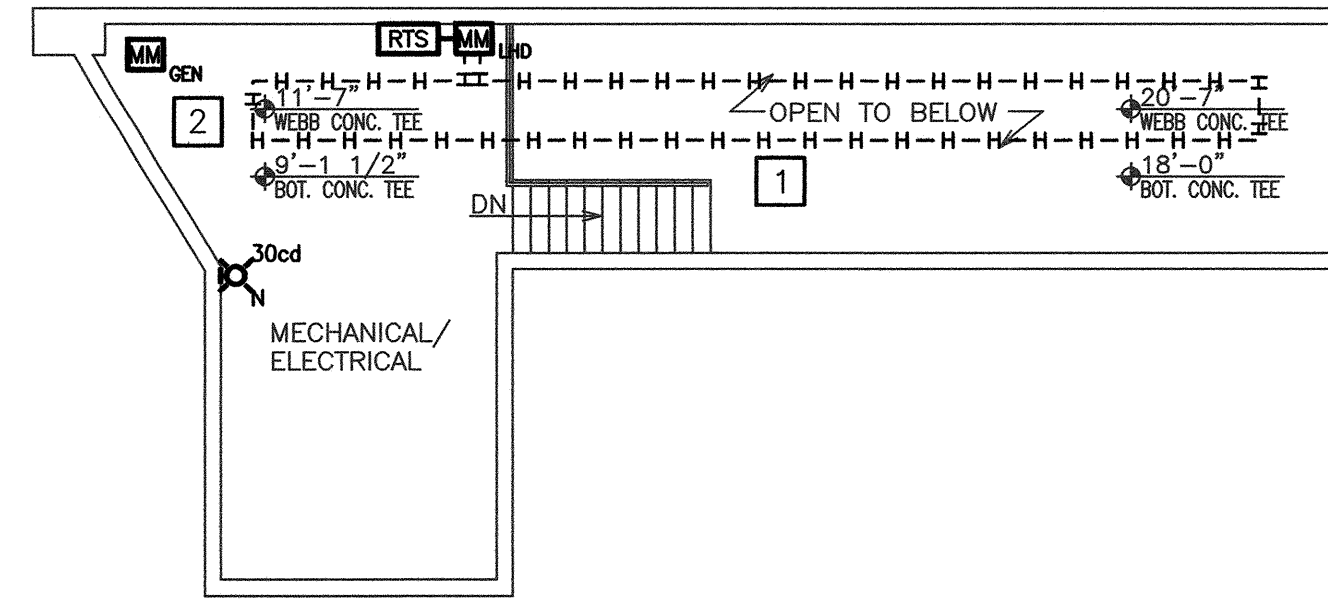
NOTE: IF DRAWING IS LESS THAN 24" X 36"
REDUCE GRAPHIC SCALE ACCORDINGLY.

TITLE
955 SANDY LANE FIRE ALARM-
NOTES, LEGEND, AND DETAILS

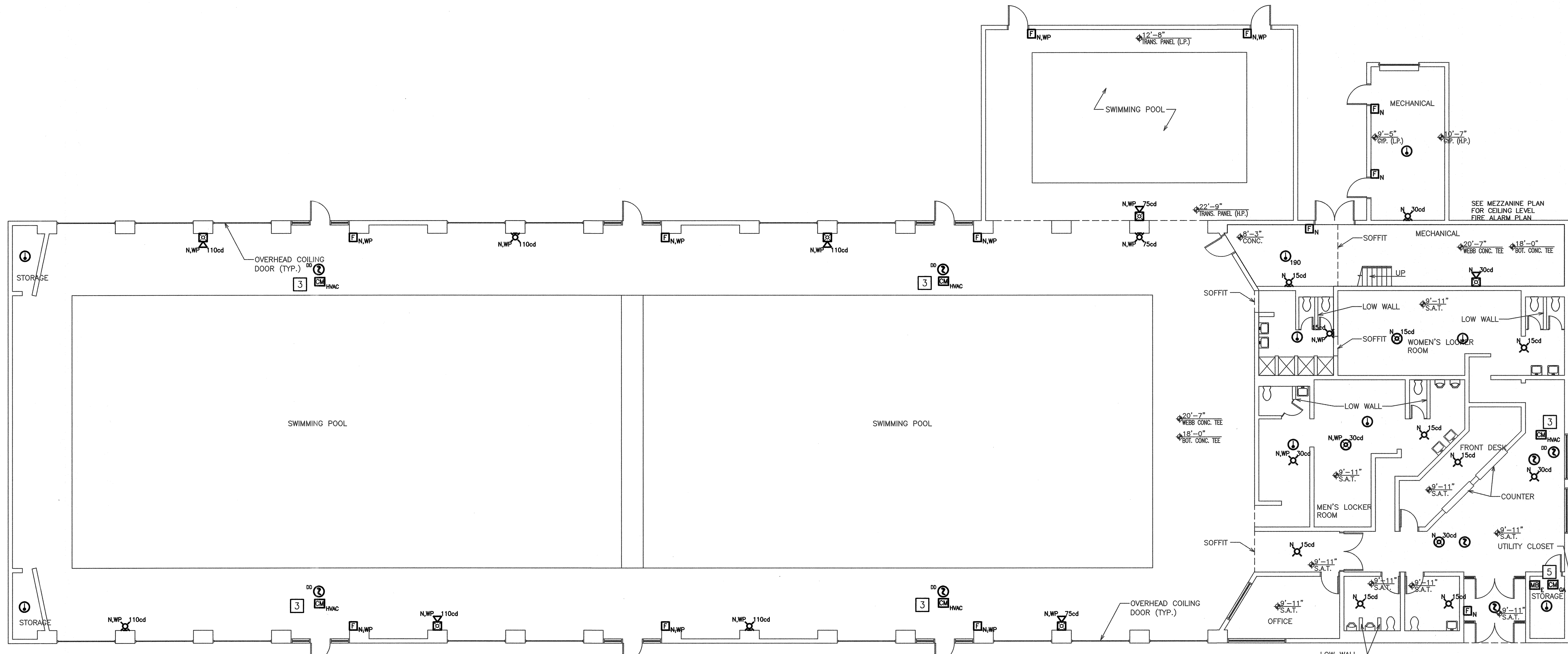
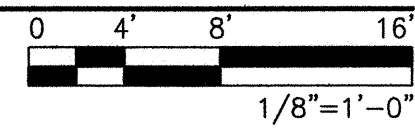
NUMBER
FA-2.0

SHEET
13 of 14

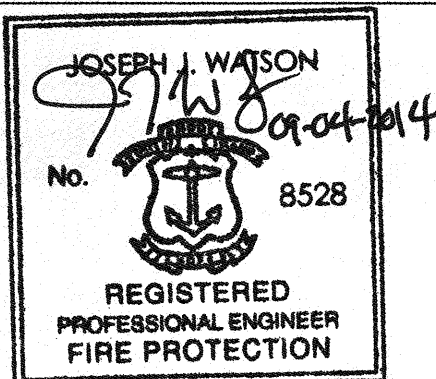
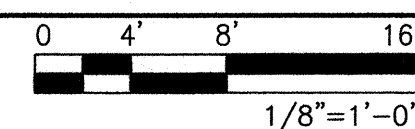
2 MEZZANINE FIRE ALARM PLAN
SCALE: 1/8" = 1'-0"



SCALE: 1/8" = 1'-0"

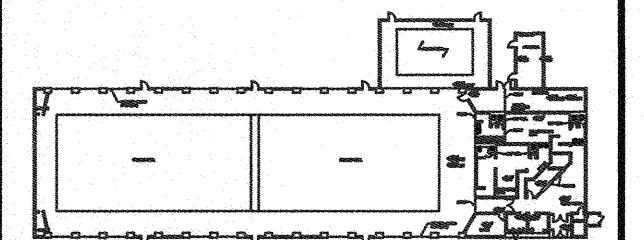


1 FIRST FLOOR FIRE ALARM PLAN
SCALE: 1/8" = 1'-0"



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KEY PLAN

[illegible]

PROJECT

FA-2

SHEET 14 of 14